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A
TREATISE
Of the Art of
WAR:

Dedicated to the
KINGS
Most Excellent Majesty.

And Written by the Right Honourable
ROGER Earl of ORRERY.

In the SAVOY:
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M. DC. LXXVII.

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20/18

To the
KING:

S I R,



*THE Ultimate and One-
ly Legitimate End of
War is, or at least ought
to be, among Christians,
The Obtaining of a
Good and Lasting
Peace.*

*And the sole Right in Your Majesties Domini-
ons, of Making War and Peace, being One un-*

a

doubted

doubted Prerogative of Your Imperial Crown, I believ'd a Treatise of the Art of War, written by One who has the Happiness to be born Your Subject; Ought, SIR, to be Dedicated Onely to You; Yet I durst not presume to do it, before I had most-humbly beg'd and obtain'd Your Majesties Leave, to lay it at Your Feet.

I have, SIR, in the short Introduction to this Treatise, lamented that none of Our English Generals, whom I know of, (except the Noble Sir Francis Vere) hath left to Posterity, his own Observations in War: When not Onely, no Nation (as I believe) hath Excell'd them in Military Conduct, in Success, and in Valor; But also when they had the Illustrious Examples of divers great Captains, inviting them to do it, who, in many Ages past, and possibly in all succeeding Ones, will be at least as much esteemed and celebrated for their Commentaries, as for their Victories; since All who more desire to merit the Title of Commanders, than only to bear the Name,

will

will more Instructively read the Commentaries or Memorials of one famous General, written by himself; than All the Relations of Battels, Victories, and Conquests, written by the ordinary Historians: For they tell us chiefly but the Events of Wars, rarely the true Methods, the Arts, and the Industries, by which they have been managed; when the knowledge of these, is exceedingly more useful; than the knowledge of those.

I therefore most heartily wish, That the present Age, and the future, may owe to Your Majesty the preserving them henceforth from the like unhappiness, by Your expressly Ordering all such as hereafter shall have the Honor to Command Your Fleets or Armies, to Present You constantly in writing, and under their hands, a particular Account of all their most important Actings, of their Observations in the War, and the Motives which induced them at any time to do as they did.

Such Memorials, in my humble Opinion, would be of eminent Advantage, to All those of the present
Times,

Times, to whom Your Majesty would vouchsafe to Communicate them ; and to All those which in the Future should enjoy the Benefit of Perusing them.

It would more than probably, make All Your Majesties chief Commanders the more circumspect in forming their final Results, when they should know, that so Great and Exact a Judge of Reason, as Your Majesty is, would still examine and weigh the validity of them.

For though it is too usually said by some, and believed by others, That Success does cover all the Faults and Errors in War, Yet doubtless the wiser Portion of Mankind, had much rather owe their Victories to their good Conduct, than to (what is termed, by the World) their Good Fortune ; Nay, had rather be less Successful, by stedily pursuing the Dictates of Right Reason, than be more Victorious, by declining them at any Time ; Since Wise Counsels are still within the Power of Wise Men ; But Success is not.

And

And if I might presume to acquaint Your Majesty, with my humble Belief on this Subject, I durst say, That no Profession in the World, is more built on true Reason, and sound Judgment, than the Military is; For both those are essentially requisite, to Generals, and the chief Officers under them.

As some manifestation of this Truth, I shall particularize but one Instance, and that shall be in Battels; which are the most Glorious, and commonly the most important Acts of War; wherein usually the moments to obtain the Victory are so few, that while an unconsummated Reasoning is considering, the opportunity of acquiring it, is vanished.

So that even the Romans themselves; who were so jealous of what they call'd their Liberty, as though they dreaded to intrust the Supreme Power in One; yet they were never under Exigencies indeed, but they chose a Dictator; as is evident in the Cases of Quintus Cincinnatus, Furius Camillus, Fabius Maximus, and divers others; Necessity making them practica, what Reason could not induce them to confess.

Nor did the Grecians owe their famous Victory at Marathon, to their having Ten Generals; but to their Generals having that Reason, which the State of Athens wanted; The placing of the absolute Power in Miltiades.

All which seems, SIR, to evidence, That the management of War is Practically acknowledged to be best placed in One, if that One is blest with the highest humane Prerogative of Well-Reasoning; and therefore illustrates, That a good General ought to have a perfect and clear Understanding, else he will be too apt to imitate what others have done, merely because they did it.

Nor have I ever known or read of any famous Captain, who was not also a Person of strong Judgment, and blest with great Presence of Mind, on all Emergencies.

Yet we too often see, and I wish we may never feel, the fatal Effects of it; That in War, as in most other things, though of the nearest and highest
Con-

Concernment to us, we take upon Trust, and with an implicate Belief, whatever we are taught by those, under whom we learn our first Rudiments.

Whereas if we would undergo the Duty, (I had almost said enjoy the Delight) to solidly to examine the true Reason of Things, and then only embrace and practise what after such Inquiry, we were convinced was the very best, we should be less Magisterially imposed upon by others, and be more satisfied in what we our selves undertook.

I think, SIR, no rational and considering Man was ever convinced, merely by anothers saying, the Imperialists or the French, or any other Nation, do thus, and thus, in the Wars, unless withall he is acquainted and satisfied, with the Reasons why they do it; For Reason, not Custom singly, is what considering Men will only follow, and the chearfullest Attempts are animated from first convincing of the Judgment.

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I know

I know, SIR, the Art of War has been in many Ages, Alter'd, Cultivated, and Heighten'd; Yet no Monarch, State, or General, though never so Absolute, did ever make any considerable Alterations in the Military methods of his Countrey, but Reason was produced, or at least pretended, to Authorize Them.

Whatever conduces most to bring all things to be weigh'd in that Ballance, is what I would Promote; I have, SIR, much Reverence for Old Customs, but much more for Reason; so that had I had the misfortune to have been born and educated in Spain, yet I am confident I should not now have been for Arming the Cavalry with Lances, or for Charging the Ordnance, in a Sea-fight, Over-deck.

If Reason will not make Men change irrational Customs, Losses will; which are the usual Converters of all those, on whom Ratiocination at first does not operate.

I have designed this whole Treatise shall consist of Two Tomes, partly because it will be too Voluminous

in

in One, but chiefly to know if the first may have the Honor and Happiness, to be acceptable to Your Majesty; since the onely Rule I have set up to my self, of liking or disliking any thing I do, is, As Your Majesty shall Approve or Disapprove it.

I have prepared the chief Materials for the remaining Tome, in which is to be contained the Greatest, the most Useful, and the most Intricate parts of the Art of War.

If this now Publish'd shall be blest with Your Majesties Favor, I shall have therein the highest Encouragement, to proceed; but if it is not, I shall have more reason to Apologize for having written so much, than to do it for writing no more.

I was not induced to undertake this VVork, at the Importunity of many Friends; nor by the Flattery of divers others, who endeavor'd to persuade me it might be of some Use to Your Majesties Subjects; nor yet to evidence, (when Your Majesty had as much above my Desert, as Expectation, rais'd me by Your Letters Patents, to be the Major General of Your
c Majesties

Majesties Army in Ireland,) I had not intirely neglected to study the Duties and Knowledge of the Military Art, (though possibly this last might have been no unpardonable Design) but the chief Ends which induced me to compose this Treatise, were Two:

The first was, That to perform the VVork well, was highly desirable; and I would provoke others to do, what, I acknowledge, I am only able to attempt.

The second was, That as from the first Time I had the Blessing to know Your Majesty, and the high Honor to be employ'd by You, (which having been both at one and the same time, I might be proud of it with more Reason, than I could be condemn'd for being so) I paid my healthful Time to Your Service; so now I would humbly endeavor to evidence to Your Majesty, and to all others, that I Dedicate my sickly Time to the same Duty, whereby all the Parts of my Life, will appear Devoted to Your Service, which cannot be more the Debt, than to discharge

*charge it acceptably, is and will be, to the last moment
of my Life , the utmost Endeavor, and the highest
Satisfaction, of,*

May it Please

Your Most SACRED MAJESTY;

Your Majesties most Humble,

Most Obedient , and

Most Intirely Devoted

Subject and Servant,

O R R E R Y.

of the ...
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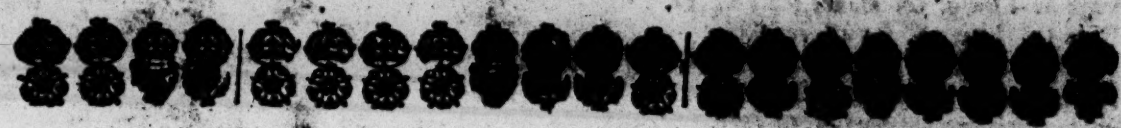
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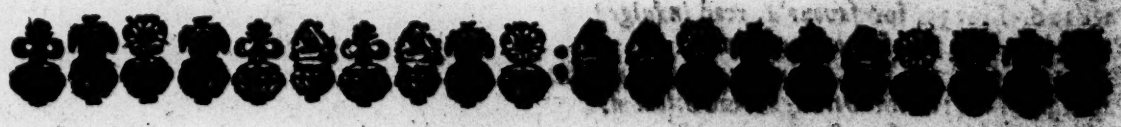
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O R E R Y



The Titles of the several Chapters, with the Pages where they Begin and End.

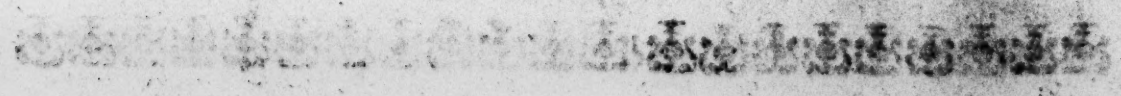
<i>The Choice and Educating of the Soldier</i>	Begin Page 4	Ends Page 22
<i>The Arming of the Soldier</i>	33	39
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LICENSED,

Novemb. 17:
1677.

ROGER LESTRANGE



ERRATA.

- Page 1. Line 14. for *peaceable*, read *peaceably*.
Page 3. Line the last save one, for *embrainig*, read *embracing*.
Page 6. Line 9. for *made*, read *makes*.
Page 19. Line 20. for *all*, read *ill*.
Page 23. Line 19. & 27. for *Javelin*, read *Javelin*.
Page 24. Line 9. for *fo*, read *for*.
Ibid. Line 27. for *Iury*, read *Iury*.
Ibid. Line 28. for *of theire*, read *other*.
Page 25. Line the last, for *then* 10, read *and not*.
Page 26. Line 13. blot out *of*.
Ibid. Line 26. add *of* after *day*.
Page 27. Line 7. for *will*, read *would*.
Ibid. Line 16. for *front*, read *fight*.
Page 28. Line 13. after *day*, add *of*.
Page 30. Line 35. blot out *made*.
Page 31. Line 38. for *be*, read *him*.
Page 39. Line 28. for *divison*, read *divisions*.
Page 40. Line 9. for *do*, read *does*.
Page 43. Line the last, blot out *as*, after *prove*.
Page 45. Line 26. for *they*, read *their*.
Page 47. Line 15. & 17. for *Parrapett*, read *Parrapett*.
Page 48. Line 10. for *would*, read *will*.
Page 50. Line 13. after *it*, read *it*.
Page 52. Line 14. for *on*, read *in*.
Page 53. Line 30. for *their*, read *the*.
Page 54. Line 5. for *open*, read *open'd*.
Page 55. Line 35. for *ot*, read *on*.
Page 57. Line 15. for *surprised*, read *surprised*.
Ibid. Line 16. for *Parrapett*, read *Parrapett*.
Page 59. Line 30. for *it*, read *are*.
Page 60. Line 10. after *discover*, point it with a semicolon;
Page 65. Line 10. after *not*, read *so*.
Page 66. Line 17. & 18. for *expeditum*, read *unexpeditiously*.
Page 67. Line 22. after *another*, blot out *for*.
Page 75. Line 6. for *and*, read *and*.
Ibid. Line 8. for *derfust*, read *derives*.
Page 81. Line 3. for *Retrenchments*, read *Intrenchments*.
Page 87. Line 14. for *breadth*, read *length*.
Page 90. Line 33. for 3, read 2.
Page 92. Line last, for 2, read 3.
Page 94. Line 32. for *as*, read *are*.
Page 96. Line 15. for *sett*, read *sell*.
Page 126. Line 35. for *favour'd*, read *indulged*.
Page 128. Line 20. for *on*, read *in*.
Page 133. Line 13. for *Continent*, read *Continents*.
Page 134. Line 18. for *Ordnance*, read *Ordnance*.
Page 135. Line 17. for 18 or 19, read 8 or 9.
Page 150. Line 36. for *Franch the First*, read *Charles the Ninth*.
Page 154. Line 30. for *Iury*, read *Iury*.
Page 156. Line 23. for *that*, read *the*.
Page 158. Line 35. & 37. for *Hofstati*, read *Hastati*.
Ibid. Line 36. & 38. for *Principi*, read *Principes*.
Page 159. Line 14. for *ease*, read *easier*.
Ibid. Line 17. after *in*, add *a*.
Page 165. Line 25. for *if*, read *of*.
Page 190. Line the last save 3, for *Economics*, read *economics*.
Page 191. Line 7. for *Jacobus*, read *Jacobus*.
Page 191. Line 14. for *Links*, read *Line*.
Ibid. Line 32. for *Squadron*, read *Squadrons*.
Page 192. Line 32. for *Faces*, read *Paces*.
Page 196. Line 30. after *may be*, read *thereby*.
Page 202. Line 25. for *follow*, read *following*.
Page 205. Line the last, for *estimable*, read *esteemable*.

A

TREATISE

OF THE

Art of WAR.



Hough no one Nation in the World, hath acquir'd more Glory by Arms, than the *English* hath done; yet I never saw, or indeed so much as credibly heard of, an entire Treatise of the Art of War, written in our Language.

Whether those who were Ablest to Compose it, esteem'd it unadvisable to have the Secrets of that Fatal, but Necessary Art, prostituted as it were, by being made Common to All: Or whether they did pretend what they writ, to their Kings onely; who, if Martially inclined, kept them as Secrets, unfit to be Communicated; or if Peaceable, neglected, and buried them in crowds of other useless Writings: Or whether in those former Warlike dayes, that Needful Science was so universally known by great Commanders, that every one in particular, esteemed it needless to write an expresse Treatise, of what was known to All in general; Or whether that great Profession

B

by

by daily Experiments, did so Improve, and Heighten, as what in one War, was worthy to be known; in the next War was so much better Cultivated, and Refin'd, as render'd it as impossible to set down Standing Rules, and Maxims, for making War, as to take the utmost height of one, who is still growing: Or whether the great Commanders of those Ages, differ'd in opinion, as to the Methods, and Principles of War, and therefore would write no Set Treatise on that Subject, lest thereby they should raise a War of the Pen. But from whatsoever Cause or Causes it proceeded, (which is above my skill to determine) yet doubtless their Silence therein, is to be Lamented. For we are thereby depriv'd of the Experience of our Ancestors, for many Ages; And Experience is not only the Greatest, but the Truest Teacher; even as much as the Practice, surpasseth the bare Theory.

It is very worthy of Observation, though the present way of Fighting, and of Arming our Soldiery, be very different from what was practis'd by the *Greeks*, and *Romans*, who were in their Times, the Great Masters of the Military Art; yet the Famousst Captains of the Latter, and the Present Age, take the Ancients, but especially *Julius Caesar*, for their Example, in all the Noblest and Best Principles of War, whose Commentaries are not enough to be extoll'd, both for the Modesty, and Policy of them. And 'tis to the Experience of those Famous Nations, that we owe most of that Discipline, which now, on our own Tryals, we have judg'd worthiest to be observed and imitated. For though the use of all Fire-Arms, and of Cannon, were Intirely unknown to them, which has much alter'd the manner of making War: And though they Fought with their Files exceeding deep, which we with much Reason have Alter'd; yet as to the Main, we owe to them most of our Knowledge: And the Difference seems Little more, than between Old-fashion'd Plate, hammer'd into New; where though the Form is chang'd, yet the Substance remains.

When

When I mention an intire Treatise of the Art of War,
I intend thereby,

The Method of { *Choosing,*
 Arming,
 Educating, } *of the Soldiery.*
 and
 Disciplining,

The { *Well ordering of Garisons,*
 Wayes of Marching an Army.

How to { *Camp within a Line, or without any,*
 Quarter in Villages,
 Attack or Defend Quarters,
 Give Battel, or to Avoid it.
 Besiege, Approach, Assault, and by
 Breach, of Cannon, or Mine, to Car-
 ry, or Defend Towns and Fortresses,
 with all the Appendages which be-
 long to those several Branches of
 the Military Art.

Which Generals, include many important Particulars,
worthy the knowledge of every one, who takes upon him-
self the profession of a Soldier. For though the Name of a
Soldier is common; yet it is Rare, to find the Thing itself.

I have therefore, by way of Essay, thought fit to set
down what I have learnt by Reading, by Discourse, and
by my own Experience; having had the Honour and
Misfortune to have been an Officer and Commander for
above Four and thirty years; much of which time I did
not Act by the Example of others, but by weighing the
Reasons by which others did, or pretended to Act; em-
bracing what on Examination I found Rational, and re-
jecting what others did, only because they were taught it.

For Reason ought to be prefer'd before Customs, which are not founded on it; ever submitting my Opinions to all such, who oppose them by stronger Arguments than those I have built mine upon; For I much more desire to follow what is the Best, than that others should follow me, if my Maxims are not such.

Whatever else this Essay may produce, yet I hope this one Good may be caused by it, even that of Inviting some Abler Person to undertake the Work; whereby it mine should not prove advantageous, yet it may produce what will be so; and effect that by another, which it wanted strength to perform of itself.

Of the Choice and Educating of the Soldiery.

WE are not so careful either in the Education of our Youth for the War, or in the Choice of Men to be Soldiers, as the Ancients were. The Greeks had publick Masters or Teachers, not only to instruct their Youth in the use of Arms, but also publick Schools for that end: the Teachers they called *Tactici*, the Schools *Gymnasia*; and it was even a Reproach and Ignominy to any, who had not learnt to handle his Arms, in those *Gymnasia's* erected and endowed for that End. Nay, some have with Reason believed, that while their Youth were Training up in those Schools, they were Fed, and Lodged, as if they had been actually on Duty in the Field; which doubtless was a Method worthy of Praise, and Imitation: For thereby not only in an instant they were able to form an Army of a Soldiery expert in the use of their Arms, but also to have it consist of Men accustomed to the Dyet and Incommodities of War: For without the latter, the former would have been of little and short benefit; since to know how to use Arms, and not to have Bodies inured to Hardships, would have been very little Significant, if not Destructive.

But

But we, when we raise Men, compose our Soldiery of Volunteers, and Prest Men, both generally unexpert in the use of Arms, and unaccustomed to the hardships of War; whereby, if suddenly after their being Listed, they should be led on Service, they would be expos'd to Defeats, and the Countries they are to defend, to Ruine.

His Majesty that now Reigns, has done more towards the redress of this great Evil, than all His Predecessors, having, by Act of Parliament, settled the Militia in the Cities, and Countries, whereby many are instructed in the use of their Arms: But this yet is far short of what the *Greeks* did practise; For our Trained Bands, especially in the Countries, rarely meet to Exercise, and then return at Night, where they feed well, and lie warm: whereas the *Greeks* had Schools constantly to teach their Youth, to fit them for War, before they were called to it; and were also accustomed to the Fare and Lodgings of Soldiers, the last of which our Trained Bands are too much strangers unto.

Besides, to be taught to handle Arms, and to endure hardship during Youth, makes men more dext'rous in the former, and more robust as to the latter, than middle-aged men can be, who at those years, do but begin to learn.

To which I must add, That our Volunteers generally (except such young Gentlemen as Honour, desire of Knowledge, and hope of Preferment call to the War) consist of such, as go to it, because they have not wherewithall to subsist in Peace; and indeed are but too frequently debauched, idle Persons, who having lived in Excess and Laziness, are the less capable to undergo the Life of Soldiers. And as to those which are Prest, they have still a hankering to return, are commonly grumbling that they have been Prest; and not minding to become Soldiers, are not studious to learn a Profession, which they never intend to practise.

The *Turks*, who possess the Empire of *Greece*, in imitation perhaps of the *Grecians Gymnasia's*, erected in *Constantinople*, in the time of *Amurath* the First, their Colledge of *Janizaries*, composed of the strongest and activest Tribute Children of the Christians; whom they sent first into *Asia*, and distributed amongst the *Turkish* Husbandmen there, to teach them the Language, and to inure their Bodies to toyle and hard-

ship; then they were brought to their Colledge at *Constantinople*, where those Youths were taught the exercise of Arms, and continued in hardships, whereby they became the Pillar of that Warlike Monarchy. For though they have several other orders of Soldiery, as the *Asapi*, *Timariots*, *Spahi's*, &c. yet the *Fanizaries* are the Soul of their Armies, and the Guards of their Sultans; for from their Childhood they are chosen, and bred up to all the Functions and Difficulties of War, which made them so expert and considerable: And though during the Reigns of the last Sultans, they have been very mutinous, and have by their Insurrections often hazarded that Monarchy, as appears by their having murdered Sultan *Achmat*, deposed *Mustapha*, set up *Morat* in the Throne, and *Pretorian* like, have cast down, and set up their Emperors as they pleased; yet this proceeded not from their Institution, but from the Corruptions of it: For while their Sultans lead them to the Wars, none were more daring against an Enemy, nor more obedient to Discipline, than they: But from the death of *Selymus* the Second, since when, their Emperors as it were began to mew themselves up in their Seraglios, and that the *Fanizaries* (that is the main Body of them, for still Parties of them were in their Armies) were thereby settled Inhabitants of *Constantinople*, they became effeminate, lazy, and consequently mutinous; for they not only addicted themselves to Trade, but also to Wine, and lastly to MARRY; which were against the Rules of their primary Institution, and probably they may be thereby, the cause of the subversion of that Empire, as they were of the growth of it, while they were kept to their first Discipline and Institutions.

The *Mamelukes* too, which were so long Masters of *Syria* and *Egypt*, were like the *Fanizaries* Train'd up from their youth to Arms, and hardship. And though their Empire were sorely shaken by the great *Tamerlane*, and finally subverted by *Selymus* the Second, yet they were ruin'd only by Numbers, not by Courage; For neither of those great Conquerors could have selected out of their vast Armies, a Body of Men no more numerous than the *Mamelukes*, which could have vanquish'd them; so great is the strength which is built on Armies trained up from their youth to Wars, and after kept under a strict Military Discipline.

By

By these *Gymnasia's* it was, that the *Greeks* had such excellent Forces, that though they had but little Territories, and those Cantonized, and often divided by Interests, and Jealousies; yet they long defended their Liberty against the *Persians*, and others, who were exceedingly their Superiors in all things, but true Military Discipline, which clearly evidences the excellency and virtue of it.

But yet by reason the Province of *Greece* (if I may so call it) consisted of so many little Sovereignities, and Republicks, they were indeed but only fit to defend themselves, not to increase their Dominions; which they never did considerably, till by Art, and Force, first by *Philip*, then by his Son *Alexander the Great*, they were in a measure incorporated; and then the World saw how a handful of *Greeks*, did by their Discipline, Conquer most of *Asia*, and in a short time, subverted that mighty *Persian* Empire, more likely to have given the Law to *Europe*, than to have received it, from so small a part and People of it.

I do not find that the *Romans* had such publick Teachers, and Schools, to fit their youth for Arms, as the *Greeks* had. But yet they were exceeding curious in the choice of their Soldiers, some instances whereof I shall enumerate.

Romulus the first Founder of *Rome*, when the City began to be populous, divided the whole People of it, into Military Orders; every embodied number of them, consisted at first of Three thousand Foot, and Three hundred Horse, which they called *Legion*; that is, *Chosen*. And after the conjunction of the *Sabins* with the *Romans*, the *Legions* were doubled, and consisted of Six thousand chosen Foot, and Six hundred Horse; but since then, the numbers of a *Legion* have often varied, and been less.

Tullus Hostilius the third *Roman* King, divided the *Roman* People into five distinct Classes or Tribes; the Richest were obliged to Arm, and Mount themselves, and wholly compos'd their Cavalry; the three next remaining Classes, serv'd for their Infantry; the fifth Class, as consisting of the Poorer, and ancients People, were exempt from War, and were left at home to get Children, and follow Manufacture and Husbandry; their Infantry, according to their Abilities, and Ages, were distinguish'd thus, into *Velites*, *Hastati*, *Principes*,

and *Triarii*, who were all Armed according as by the institution of their several Orders, had been at first established.

All these Tribes being Rendezvous'd without Arms, the Tribunes compos'd the *Velites* of such as were the very youngest, and poorest of the said three Tribes; the *Hastati* were compos'd of the better sort of the Poorest, and Youngest; the *Principes* were compos'd of the most Vigorous, and Active remaining; and the *Triarii*, of the gravest and elder sort of the said Tribes. But in effect I find that the Roman Infantry only consisted of three distinct Bodies, *viz.* the *Hastati*, *Principes*, and *Triarii*; for the *Velites* rarely, if ever, were a distinct body; but both in the Embattellings and Campings, (as shall be hereafter more particularly set down) they were mixt with the other three.

It is true, some ancient Authors mention other Classes of the Roman Infantry, as *Tironi Rorarii*, and *Accensi*, which I take to be all a younger sort of Soldiery, onely employ'd (as most commonly the *Velites* were) in loose Parties, to use missil Weapons, and gaul an Enemy; but were never a body that fought in formed Battalions, or with a firm foot.

After the expulsion of the *Tarquins*, and in them of the Roman Kings, they chose Annually two *Consuls*, which *Consuls* chose the Four and twenty *Military Tribunes*, which were in each Consular Army; but afterwards the People themselves would often choose them; All the four first Classes of the People, but such as were in the Field, were Annually called by the *Consuls* to the *Capitol*, or else to the *Field of Mars*; and whoever fail'd to appear, was rigorously punish'd.

The Romans obliged none to be Soldiers but from the Age of Seventeen, to the Age of Five and forty; And to encourage all their People to turn Soldiers, none could be admitted to any Civil Magistracy in Rome, that had not serv'd ten years compleat in the Wars; nor any under the Age of Twenty seven years, was capable of a Civil Office: And every one was obliged (of the Twenty eight years during which he was tyed to the Wars if the State required it) actually to have served Fifteen years; so that when they came to the Age of Forty five years, and had served Fifteen years thereof in War, they were no longer obliged to bear Arms,

Arms, unless it were for the guarding and defence of the City, and then were usually called *Emeriti*.

It was also a standing Rule among them, that none could attain to the dignity of one of the Four and twenty *Military Tribunes*, that had not actually served at least Five years in the Wars; and this favour also, was only extended to the first Fourteen of them who were chosen out of the Four and twenty; and for the remaining Ten, none could be Elected, that had not served Eleven years in the Infantry, or Fifteen years in the Cavalry; which proves how much more the *Romans* esteem'd the Foot-service, than the Horse.

Four Legions alwayes compos'd a Consular Army, and commonly they had two such Armies annually; this was the Primitive Institution. And though through the exigency of their Affairs, they had often more than eight Legions at once entertained, yet the rest were distributed to, and commanded by their *Pretors*, *Proconsuls*, and other Chiefs. When *Hannibal* was in *Italy*, they had at once Twenty three Legions on foot; and *Julius Caesar* had Ten Legions at once in the Wars against the *Gaules*: but this was when the vigor of the Laws declined, or the very Being of their Commonwealth was at stake. Of the Four Legions which compos'd a Consular Army, Two of them were alwayes of the *Allies*, and they were chosen just as those in *Rome* had been; only the *Allies*, as the need required, were bound to send the double number of Horse; because their Countries being much larger than the City Territories, were abler to furnish the Army with Horse.

Before they proceeded to the Election of Soldiers, they divided the Four and Twenty *Military Tribunes*, to the Four Legions, in this manner: Of the Fourteen youngest Tribunes, they appointed Four of them to the First Legion; Three, to the Second; Four, to the Third; and Three, to the Fourth: And of the Ten ancientest Tribunes, they appointed Two, for the First Legion; Three, for the Second; Two, for the Third; and Three, for the Fourth: by which, every Legion had six *Military Tribunes*, and in every Legion the younger, and elder Tribunes were dispersed.

The Four and twenty Tribunes thus chosen and appointed, they drew the Tribes by Lots; out of the first, they
D chose

chose four Soldiers of the equallest goodness they could; out of which four, the six Tribunes of the first Legion chose one, the six Tribunes of the second Legion chose one, the six Tribunes of the third Legion one, and the six Tribunes of the fourth Legion had the remaining one. After this, they chose other four Soldiers as equally good as they could, out of the first Tribe; and then the Tribunes of the second Legion, chose one first; the Tribunes of the third, chose next; the fourth, next; and the first, had the one Soldier remaining: And thus they did alternatively, till the Legions were composed out of all the Tribes, so that the first Legion had no advantage in the choice of its Soldiers over the other three; but though this was a tedious way of choosing, yet it was a very impartial one, and proves they stuck at no trouble, when it was to do equally to all. After the Foot Soldiers were chosen, the *Censors* chose the Cavalry.

The choice of the Private Soldiers being thus made, the Tribunes of every Legion made every Soldier, one by one, swear to obey, and do all that should be commanded him by his Superiors; which was perform'd, by every mans raising his right hand, and holding the thumb of it upright.

The Tribunes then divided every Order of the Soldiers into Centuries, and Cohorts; out of every one of which, they made two Elections, each of ten men; the first Election as the most honourable, assisted at general Councils of War, and were in effect what the Captains are in our times; those of the second, were in the nature of Lieutenants; and though those of both the said Elections, were called *Centurions*, yet the former were called, *First Centurions*, those of the last, *Second Centurions*.

After this, the said *Centurions* chose their *Vexillarii*, who were in the nature of the Ensigns of our times, but there were two of them to every Cohort.

Then they made choice of Twenty *Tergiductors*, who were those that ordered the Rear of the Cohorts, whereby they had to every Cohort, two Chiefs in the Head, and two in the Rear, besides their *Vexillarii*.

A Roman Legion was usually divided into five Orders; the Infantry made four, viz. the *Velites*, *Hastati*, *Principes*, and *Triari*; the Cavalry one; every one of these four Orders of
Foot

Foot were divided into ten Companies, those of the Infantry were called *Centuries*, *Cohorts*, or *Manniples*, those of the Cavalry *Turme*.

Every one of the three first Orders of the Infantry consisted of twelve hundred Soldiers, which were divided into ten Companies, every one of which consisted of One hundred and twenty Soldiers. The fourth Order, that of the *Triari* consisted but of Six hundred Soldiers, which made ten Companies, each of sixty Soldiers.

The Horse of a *Roman* Legion were but three hundred, which made ten Troops, each of thirty, so that usually a *Roman* Legion consisted of Four thousand two hundred Foot, and three hundred Horse, divided into forty Companies, and ten Troops. They have, as I said before, often varied in their number, but this has most usually been the quantity of Soldiers, Foot, and Horse, which composed a *Roman* Legion.

The Military Tribunes, commanded their Legions by turns, two at a time, for two months together, and so alternately it went round.

There is great variety of Opinions amongst ancient Authors about the Names of *Centuries*, *Cohorts*, and *Manniples*. But 'tis thought they were but several Appellations of the same thing, though in some places of *Titus Livie*, one may find a distinction from the *Cohorts* to the *Centuries*, and from the *Centuries* to the *Manniples*; which many think did proceed from the Legions being sometimes increased to six thousand, nay to seven thousand men, and therefore such Subdivisions have been made.

We are left much in the dark, as to the choice of the Soldiery amongst the *Greeks*, whether it be by reason that the times in which they were most famous, be remote; or that the Language is not so generally understood as the *Latin*; or that the *Romans* having Conquer'd them, suppress all traces of their methods therein; yet their *Gymnasias*, and their *Tactici*, evidence enough they were sufficiently careful in that important particular; for none can expect to have a good Orchard, who has his Trees out of a bad Nursery.

'Tis worthy observation, that we seldom or never read, that the *Greeks*, or the *Romans*, prest Soldiers for the Wars, which

is a thing so frequent in most Countries, in our times, and possibly most in *England*, of any Kingdom; I cannot fancy that this does intirely proceed from their being more Martially inclined than the *English* were, and are; who (without flattery to my Countreymen) I think are as little apt to fear, as much daring in Danger, and as ambitious of Honour, as either the *Greeks* or *Romans* were, when they flourished most. Nay, I durst hold all I am worth, (were the Wager lawful) that if a thousand men which have never us'd Arms, (or a greater or lesser number) were taken from the Plow, or from any Mechanical Employment, out of any Country in the world, and the like number of *English*, both newly Arm'd, equally Officer'd, and were immediately to fight, that the *English* would be victorious; which I attribute chiefly to three things:

The First is, to those Noble Principles of Freedom, under which, by our Monarchs Laws, they are born and bred up.

Secondly, to their substantial Diet, than which, none of the common sort of People in the world have so good.

Thirdly, to the Exercises they use on Holy dayes, and at Wakes, and Fairs, especially their Wrestling, which makes them strong, and active.

I mention not a fourth, which the Noble Sir *Walter Raleigh* takes cognizance of, that we have a midling sort of People, viz. the Yeoman, and his Children, which are not so low as the Peasant, nor so high as the lesser sort of Gentry; and are in effect an order of men, which generally have compos'd our better sort of Foot Soldiers, and which few parts of the world besides *England* are acquainted with; I say I mention not these, because I limit what I speak of, only to the Plowmen, and those of Handicrafts, which usually are below the rank of the Yeomen, and their sons. And if our Commonest sort be such, what may not (in a degree of proportion) be infer'd, and believ'd, as to our Yeomanry, our Gentry, and Nobility? To which I shall only add, that I very seldom saw the *English* Soldiers flinch, if their Officers were good; Nor did I ever see *English* men when routed, if they flung not away, or lost their Arms, but they would Rally again, and again, and fight as heartily as ever; which can hardly

ly with truth be said of many other Nations, if of any; This last particular, was observed by that great Captain Sir Francis Vere, at the Battel of Newport; where the *English*, under his Conduct, by the Appointment of the Prince of Orange, did endure the heat of that dayes Action; and, under God, chiefly obtained the Victory for the *States of the United Provinces*; but to purchase it, were often disorder'd, and routed: yet Sir Francis Vere would still ask, *Had they lost, or flung away their Arms?* And being answer'd, *No*: He said, *Then I'll warrant you, I'll make them fight again*; and did so, so often, till the *Spanish Army* was intirely defeated. I beg the Readers pardon, if the Affection I have for the Truth, and for the Honour of my Countrey-men, has led me into this short digression; out of which I will hasten, to consider, since the *Romans*, and *Greeks*, were no more Warlike than we, and yet Prest not their People to the War, why we Press ours; some of the Reasons seem to me to be these.

First, The *Romans* needed not to Press, because by their Laws, all from Seventeen, to Forty five years of Age, were to be Inlisted; so that in effect, War was, as it were, their Vocation.

Secondly, None was capable of Civil Employment in their Commonwealth, that had not served Ten years in their Armies; nor any capable to be of the first Fourteen Military Tribunes, that had not Five years served in the Field; nor of the last Ten Military Tribunes, that had not served Eleven years in the Foot-service, or Fifteen years in the Horse-service; which were Incentives that more Prest their Peoples Minds, than our Press-masters do the Bodies.

Thirdly, Since War was the onely Ladder by which their People could climb to Civil Authority, or Military Power, they needed not Pressing.

Fourthly, The Art of exactly Fortifying places, was little known, and less practised in those times, whereby National Quarrels were decided by Battel, and one gain'd, did usually, as the consequence thereof, carry an intire Province or Kingdom; in the over-running of which, their Soldiery got ten times more than their Pay, by the Pillage; which has not onely often enriched the Conquerors, but their Posterities also; besides, being brought up from their Childhood to Arms, and

Hardships, and conducted by brave, and experienced Commanders, they were so often Victorious, that a Battel was what they did not fear, but desire; since they Fought commonly against Rich, and Effeminate Nations, who were only made Soldiers at a need, and therefore usually Fought at that rate.

Lastly, To omit many other Particulars, the *Greeks*, but especially the *Romans*, provided Maintenance, and Hospitals, for such as being Maimed, or Superannuated in the Wars, were unable to provide for themselves; nay, often settled them by Colonies, in the Lands they had Conquer'd; thereby Securing, Inlarging, and Peopling their Conquests: which was a high Encouragement to them, not only to be Soldiers, but to Fight bravely; so that no Calling had so many Charms to allure at home, as the Profession of the Soldier had abroad; for they had Honour, Profit, or Preferment, in possession, or in prospect; and when they could Fight no longer, they were the rest of their Lives provided for, on the account of what they had Fought; an Act of which I cannot readily determine, whether it had more of Justice, Gratitude, or Wisdom in it.

As to the *Greeks*, they had the Wars as it were alwayes at their Gates, where every ones particular Safety, Press him without Press-masters to the Wars; but when they invaded *Asia*, they had the like motives to be Soldiers, which the *Romans* had.

Having thus set down some of the Causes which made the Pressing of Soldiers needless among the *Greeks*, and the *Romans*, I shall expose some of those Reasons, why (in my poor opinion) our Kings have been necessitated by Laws to Press Men to the Wars.

First, War is not the Standing Vocation of our People; for the Christian Religion makes it hardly Lawful, but where it is necessary; and it teaches us to do as we would be done unto: Therefore as we would not that others should fall upon us, only because they are stronger than we; so we ought not to fall upon others, only because we could Conquer them: But lest these Reasons might not generally pass as valid ones amongst all the Sword-men, I shall therefore mention others.

Secondly,

Secondly, The Pay of the Private Soldier is so small, and so many other Trades, and Professions, are introduced by the Luxury of our Ages, which were unknown to the ancient *Greeks*, and *Romans*, that there is hardly any Occupation so vile, or mean, (even that of the Ditcher or Thrasher) but the Professor of it may gain daily by it, doubly more at home, and at ease, and safety, than the Soldier can in the Field, with the hazard of his Life, and all the miseries of Hunger, Heat, Cold, and the other usual Attendants on War.

Thirdly, Battels do not now decide National Quarrels, and expose Countries to the Pillage of the Conquerors, as formerly : For we make War more like Foxes, than Lyons; and you will have twenty Sieges, for one Battel; in which Sieges, the scarcity of the Victuals, the certainty of Blows, and the uncertainty of Plunder, (Capitulations giving up Places, when not much longer Defensible), renders the usual parts of War, full of Sufferings, and Dangers, and of little or no profit to the Soldiers.

Fourthly, Men need not serve long in War, to be capable of Civil Offices, as was the Rule amongst the *Romans*; but on the contrary, Men that have served long in the Wars, are thereby, in the judgment of many, the less fit for Civil Employments, which is no small Discouragement from the Vocation of Soldiery; nor is War the constant Profession among us, as it was among them.

Fifthly, One needs not now, as among the *Romans*, to have served as it were an Apprentiship in the War, before he was to be a Master; that is, a Tribune : For now by Friends, Favor, or otherwise, a Man may be made a Colonel (which is at least equivalent to a Tribune) the first day; so that the necessity of being capable to Command, before Men actually do it, being not imposed, it takes away one of the greatest Motives to become a Soldier : For few will go about, and by a rough way; when there is a short, and smooth one.

Lastly, That great and wise Encouragement which the Ancients gave their Soldiers, of providing for the Maimed, or Superannuated, by feeding and maintaing them, or by Rewards in Lands, is not practised amongst us, only we have some faint representations of the former, in our Hospitals;

but alas, how few of them are for Soldiers. But were all of them for that use, yet the Plaister would be much too narrow for the Sore; and would be rather a sign of the thing, than the thing itself.

But yet I must say, That His Majesty King *Charles the Second*, has out-done therein, not only all his Royal Predecessors, but even all the *Greeks* and *Romans*, forasmuch as concerns the *English* Soldiery of *Ireland*; since he has not only given Lands to the Maimed and Superannuated, but to all the rest, and to their Posterities for ever: And though the Major part of the Forces which reduced *Ireland*, did perform that Service, and Conquer'd those Lands, under Usurpers, and during His Majesties absence; yet He most Royally confirm'd, or more truly, Bestowed the Forfeited Lands, after His Return, on them, and their Heirs for ever. Nor can the Statutes, and Patents, more firmly entail those Lands on them, and their Children, than I assure my self, He has entail'd, and will entail Loyalty and Gratitude in their hearts; for they may as soon forget they have Estates, as Him, from whose Generosity they have received them; whereby what they are, will still mind them of what they ought to be.

I shall conclude this first Discourse, touching the *Choice and Education of the Soldiery*, by a short Review of what the Ancients did therein; what we do; and offer some particulars to Consideration, what possibly may be fit to be added.

The *Greeks* had publick Schools, and publick Teachers, to instruct their Youth in the use of Arms, and to breed them to the Sufferances of War, ere they made it. In imitation whereof, we have our Trayned-Band, and in some Cities our Artillery Yards, or Grounds.

These teach our Men the use of Arms, and several Figures to Fight in, and so far 'tis very good; but then it does not accustom them to Hardship, which is one of the first, if not the very first Requisite to a good Soldier. But whatever they do in the Cities, yet I doubt they rarely meet in the Countries; whereby those places which are likeliest to afford most Soldiers in time of War, (for the Countries have more People than the Cities) and those that are generally most inured to Hardship, (for the Peasant labours more, and eats, and lodges

lodges worse, than the Citizen) are the least Train'd to Arms.

And therefore if the several Commission'd and Non-Commission'd Officers of every Troop and Company of the Militia, were strictly ordered on Holy-dayes, to exercise those of their Neighborhood which are of their Troop or Company, and if the private Soldiers fail'd to come, or the Officer neglected his duty when they came, if Deputy Lieutenants were empower'd to punish such as were faulty therein, it might probably be of good use, especially if the Counties allow'd some little encouragement to such Officers; or if such of the Soldiery as fail'd, were to contribute something to the Officer, who did appear, and teach those who came.

But above all, if at least twice a year, the several Militia Regiments, were to Rendezvous, and to Hutt, for four or five dayes together; and during that time, were to perform all the Functions of War, as if they were incamped near an Enemy; it would in all likelihood be of excellent benefit in time of Rebellion, or Invasion.

In which Campings, I would have them make their Hutts in the form of Streets, and Piatza's; and in just as little room, as if they were to make a Line about the Camp; which would teach them what to do, and make them expert therein, against the need were real.

In which Campings also, I would have all Excess, or Debauchery, both strictly prohibited, and severely punish'd, if practised; for Debauchery in Armies is the High-way to Ruine, since those obey best, that are most sober.

During these Campings, such time as was not employed in handling Arms, exercising, marching in several forms of Bat-tel, and Skirmishing, I would have employed in Jumping, Running, but most of all, in Wrestling, to make their Bodies the more active, and strong, and to hinder them from all ill employments: But above all, I would recommend Wrestling; for whoever thinks himself the strongest, and activest of body, will strive to come closest to his Enemy; and if he be so, will the sooner overcome him; whereby in fight, none will doubt those will charge the homest, who find they are strongest, at the grapple.

Lastly, If to these before-mentioned Particulars, there were at such half yearly Campings little Medals with Ribons, or such other small Rewards, for every one of those who should be judged best at the use of the Pike, or Musket, or at Shooting at Marks, or at Running, Jumping, or Wrestling, (to the best at which last, the Medal should be still of double value, as that Exercise which ought most to be encouraged) I believe it would so incite every individual person, that the Generality could not but be highly improved, and the Emulation those little Rewards could not but ingender, would questionless produce desirable effects.

Besides the great Concourse of the Nobility, Gentry, and unlisted Commonalty, which Curiosity, or some other Motives would draw to see these Campings, and Exercisings, would be an additional Incentive to all the Militia to appear, not only in their best Garbs, but also to be more expert in the several performances, during their Camping.

I leave it to the judgment of all men, whether the benefit to the whole Kingdom, would not much outweigh the charge, and trouble; if this method, or something like it, were constantly observed: In which case, what is here set down in generals, and roughly, might then be more minutely ordered, and polished, and many needful things added; For the wit of man cannot in the Theory find out so much, as in the practice will be discovered.

The Ancients, especially the *Romans*, had the choice of all their People from Seventeen, to Forty five years of age.

We, in imitation, have the choice of such whom the Laws exempt not from Pressing, from Sixteen, to Sixty years of age, out of them to form our Soldiery; I think youths but Sixteen years of age, are of the youngest to be led on actual Service, though not to be Trained to Arms, and Hardships: And few men, when Sixty years old, are fit for the Wars, especially if then they but begin to be Soldiers; so that methinks the *Romans* therein, began later, and ended earlier than we do, with much reason; which therefore I could wish were altered by us, and that none before he were past Seventeen, and none after he was Fifty, should ever be Pressed to be Soldiers. I would allow Five years longer to our men who are to be Soldiers, to continue such, than the *Romans* allowed to theirs;

theirs; because our Climate is not so scorching as theirs, and therefore the radical moisture which is as it were the sap, and makes the vigor of our men, lasts longer in our temperate Climate, than in their hotter. Besides, most men when arrived at Fifty, begin to participate of those infirmities, which render them unfit for the Actions, and Sufferings of the Lives of private Soldiers.

The Military Tribunes chose out of every Tribe (every one alternatively) those who were to compose their Legions. But alas! 'tis not our Officers which choose our Soldiers, but our Press-masters generally do it for them; whereby 'tis no wonder if often our Regiments and Troops have so many in them, unfit to be Soldiers; since too commonly these Press-masters, Press those who are abler to buy themselves off, than able to make fit Soldiers to serve their King and Countrey; besides, how often are they actuated to spare the fit for Favor, and to send the unfit for Revenge, or some other as bad motive.

The Tribunes were likely to choose well, because they chose for themselves; and if they chose ill, they thereby expos'd their Honours, and their Lives.

The Press-masters with us, choose for our Tribunes, or Colonels; and are likely to choose all, because few do so conscientiously, and most do it out of sinister Considerations.

The Tribunes, if they chose ill Soldiers, were to lead them.

But the Press-masters, if they choose ill men, are only to be rid of them, and may gain much by it.

'Twere therefore very highly to be wish'd, that the Press-masters had some few and written Rules given them whom to Press; and if they broke them, that they might be severely punish'd for it: Amongst which Rules possibly these might be fit to be express'd, *viz.* To Press none that were not past Seventeen: To Press none past Fifty: To Press onely the younger, the stronger, the activer sort, and if possibly not to Press the Married; at least not to Press any of them, till on Tryal, 'twere evident the unmarried were not sufficient to form the Forces; since the Married are generally too much incumbred to follow the War with that intentness of mind,

which the Profession does require, as appears by what *St Paul* sayes, *No man that warreth, intangleth himself with the affairs of this life, that he may please him who hath chosen him to be a Soldier.*

The Ancients, and the *Romans* most particularly, had not only the advantage of us in the choice of their private Soldiers, but also in the choice of their Officers; for every higher Order of them, choose the next; and so in Sequence, the second choose the third Order; and the third, the fourth, till all were chosen; whereas in the generality, all our inferior Field Officers, and Commissioned Officers, are put upon our Colonels; whereby perhaps they may have good Officers, but the Tribunes were certain to have them, if it were not their own faults. And 'tis worth marking, how gradually the *Romans* proceeded therein. First the People (that is the State) chose the two Consuls, the two Consuls chose the Four and twenty Military Tribunes to each Army; the Four and twenty Military Tribunes, chose the Twenty first and second Centurions, that is, their Captains and Lieutenants: then the Centurions chose their Twenty *Vexillarii* or Ensigns, and those, their Twenty Tergiductors; whereby if the Tribunes chose well, 'twas likely they would also have all the rest well chosen.

I do not find they had inferior Field Officers, such as our Lieutenant Colonels and Majors, unless the Tribunes out of Function did that Duty: Nor do I find that they had any Officers in the nature of our Serjeants, and Corporals: Nor that they had Officers who were immediately to take care of, and command in the Flanks of their Battalions; which being very deep, ought doubtless to have been the more taken care of: But to supply this, every Cohort had two Centurions in the Front, two Tergiductors in the Rear, and two *Vexillarii* or Ensigns; whereby having to every Company as it were six Commissioned Officers, they might appoint two of them for the Flanks, where they were needed more than in the Front and Rear; for their Files being Four and twenty deep, a Cohort could be but of five in a Rank.

The *Roman* Officers had also a greater tye and obligation on their Soldiery, than we have on ours; for they had the Solemn Oath, or Military Sacrament, of every private Soldier

to be obedient to his Superior Officers. In some imitation of which, our Soldiers take the Oath of Allegiance, and Supremacy ; but those have References to the King, not to the Officers ; which to supply, we have Articles and Ordinances of War, whereby several Crimes are punishable by Death, as Abandoning, and Running from their Colours ; Mutinous Words, and Actions ; Drawing his Sword against, or Striking his Superior Officer, &c. These indeed render him liable to Punishment if he disobey, but there is no previous obligation on him to obey his Superiour. We indeed punish, if Soldiers do amiss ; but we have no solemn Promise, much less Oath, that they will obey their Superiors in all their Commands, for His Majesties Service : But they had previous Oaths of Obedience, and punish'd subsequently all Failers ; whereby they had double, and better Tyes, than we have.

The *Romans* also excelled us in this important particular, that none could be a Military Tribune, (which had most favor) who had not actually served in the Wars five years : And none that had least favor, could be a Tribune, who had not served eleven years in the Wars amongst the Foot, or Fifteen years amongst the Horse ; whereby none could be a chief Officer, before he had been a long time a Soldier ; as judging him unfit to Command, who had not first learnt to Obey.

Whereas we have often many made Officers, that never were so much as private Soldiers ; and are set to teach others that Art, which they, over whom they are placed, are too often abler to teach them ; which is dangerous to the Sovereign, and often begets Contempt of the Superior, amongst the Inferior, and is a Mischief worthy of Redress ; at least, that none might be Field Officers, that had not been before a Captain or Lieutenant ; and none a Colonel, that had not been first a Field Officer, unless where a Person of great Quality and Interest was made Colonel, whose influence might supply the defect of his unskilfulness ; and in such Cases, great care ought to be had, to fit him with an experienced Lieutenant Colonel, and Major ; For that world is the best, when Places seek Men, and not when Men seek Places.

The *Romans* also were very prudent in the distribution of their Tribunes in their Legions, which they did with so much

care, that whereas the first Legion of a Consular Army had four Tribunes which might have served in the Wars but five years, yet it had two, which had served eleven, or fifteen years; and the second Legion had three that had served five years, and three that had served eleven or fifteen years: and so in course for the remaining two Legions, whereby they still, as near as might be, distributed equally the most knowing and experienced Tribunes, in every Legion.

Whereas I have often seen many Regiments, where most part of the Officers, and most of the Soldiers, have served as long in the Wars, the one as the other; that is, neither ever saw the Wars: But I have seen it thrive accordingly.

Lastly, Not to tire the Reader with too many Particulars in this one Head:

The *Romans* established certain and competent Provision for their Maimed and Superannuated Soldiers, which we do not; and what they did, invited their Soldiers to great and daring Actions: But what we omit, deters many of ours from attempting them.

But then I must say, their Trade was War, and I thank God ours is not; but yet in proportion to what they did, if we did write after their Copy for so much as is requisite for us, it might be an Action of more Prudence, than Cost. And since War is not our Profession, we ought, in my humble opinion, to make use of the best means to avoid being engaged in it; and the best way to prevent a War, is, that our Neighbors may see we are in a good condition to make it.

The

The Arming of the Soldiery.

THE *Greeks* were certainly at first more usefully Armed than the *Romans*, both as to their Infantry and Cavalry : For besides those Arms Offensive and Defensive, which were common to both, As the Sword, the Darts, the Shields, the Slings, &c. The *Greeks* had long Pikes, which I find not the *Romans* had, and which are the very best offensive Arms either to Charge, or to Defend, and of excellent use against Horse. For defensive Arms they had the Target, and the Shield, and the Back Breast Pott and Tases, &c. Nay, some had their Horses Armed, which they called *Barded*. The *Roman* Cavalry were at first pitifully Armed for Offence, or Defence, till from the *Greeks* they learned to use the Curass, the Shield, and the Javelot. I have often admired they would not also follow the example of the *Greeks*, in Arming some of their Foot, with long Pikes. The ordinary Arms of the *Roman Velites* were a Murrion, a Rondach, a Sword, and some Darts; their Archers and Slingers were called *Extraordinaries*, and were Auxiliaries.

The *Hastati* had Targets Four-foot high, Head-pieces, and little Plates of Iron to cover their Hearts. The Richest of them had intire Curasses, they wore their Swords hanging on their Right sides, and those Swords were short, broad, two edged, and well pointed; and every one of them besides had two Darts.

The *Principes*, and the *Triarii*, had the like Arms, both Offensive, and Defensive; only the *Triarii*, instead of two Darts, had two Javelets.

The Allies of the *Romans*, as well Foot, as Horse, were alike Armed, and Disciplined, as the *Romans*, whereby 'tis apparent how Use makes all things easie; for neither the *Greeks*, nor the *Romans*, had stronger, or more vigorous bodies than we; and yet their Foot marched in Armor in hot Climates with large Targets, heavy Swords, and carried also two Missile Weapons; whereas our Soldiers think the Pike or the Musket (often without Swords, alwayes without Ar-

mor) to be a Load, which only proceeds from our Relaxing the Military Discipline ; which is not only a Reproach to us, but also a great Prejudice.

I think we are much more usefully Armed, than the *Greeks* or *Romans* anciently were ; and, in my poor opinion, we only want for our Infantry the Target, to be excellently Armed.

The five offensive Arms in use amongst us, are the *Sword*, the *Pike*, the *Musket*, the *Pistol*, and the *Carrabine*. For I look on the *Lance*, as now wholly laid by, and I think, with reason ; for the *Lance* does little, unless it be by the force of the Horses Course, or Carreer, and even then, only the Front is useful ; so that their best order to Fight in, seems to be to charge a Rank at a time, which yet can hardly resist Squadrons of Horse, especially if Riders be in Armor : But if the Lanceers Fight in Squadrons also, 'tis much more likely they should discompose themselves, than hurt those they Fight against ; which are such apparent inconveniencies, as have made me admire, that *King Henry IV of France*, most justly Surnam'd the Great, *Alexander Fernelle Prince of Parma*, and *Charles of Lorrain Duke of Mayen*, three the greatest Captains of the latter Age ; nay, it may be of any Age, would often lament, that *Lances* were then throwing aside, as *Davila* in his excellent History of the Civil Wars of *France*, does observe, with this addition, That *Henry the Great*, and all his chief Commanders, more apprehended those thousand Lanceers, led by Count *Egmont*, at the Battel of *Jury*, than double the number of any of the Leagues of their Cavalry.

Our Foot Soldiers generally are two thirds Shot, and one third Pikes, which I have often lamented ; for methinks the Pikes should be at least half, especially in His Majesties Dominions, in which are few strong places, and consequently Battels, and Fightings in the Field, are more common than Sieges ; and, without dispute, the Pike is the usefullest Weapon for the Foot : and a good Stand of them, assisted by Shot, if the Angles be well guarded, are not easily broken by Horse and Shot united.

The *Swissers*, generally, and justly, esteemed excellent Foot, have more Pikes, than Shot ; which, possibly, as much as their Valor, Discipline, and the strength of their Bodies, has contributed to their Glory.

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'Twas to their Pikes they owed that famous Retreat they made, when in the Hollow of their Battalion, they carried King *Charles* the Ninth of *France*, and almost all that Family Royal, from *Meaux* to *Paris*, though 'twere a Champion Countrey, though they had no Cavalry to assist them; and though *Lewis* Prince of *Conde*, *Gaspar de Coligni* the then Admiral of *France*, *Andelott*, and the greatest Horse Commanders of that Age, often Charged them in Front, Rear, and Flanks; yet with the heads of their Pikes, they forced their way, though all the hopes of the *Hugonot Lords*, depended on that dayes Action.

I had also an Experiment of the goodness of Pikes in the year 1651. when in the last Battel we had in *Ireland*, I had the Honour to command the *Englisb* Forces against the *Irish*, and though we Fought in an open Countrey, and though we had Routed (after a smart resistance) all the Horse of their Left Wing, and above a Thousand of their Musketeers, which composed the Left Battalion of their Foot, yet about Twelve hundred Pikes of the Enemy, without any Shot with them, Advanced boldly, and Charged our Squadrons of Horse so home, after their Horse and Shot of that Wing were Routed, that we had more Wounded, and Kill'd, in that Charge, than in the whole Fight besides: so that had they Guarded their Angles, when we Charged them Round, they had done us much more mischief, if not recovered the day; but by the Angles we broke in, and afterwards the resistance was but small, nor indeed could it be otherwise.

But what need I say more of the usefulness of the Pike, above the Musket, than that all Persons of Quality who put themselves voluntarily, or otherwise into the Infantry, carry the Pike; which they would not do, unless it had adjudgedly the Honour to be the Noblest Weapon, since the bravest choose, and fight with it: And therefore I must again say, I wish our Companies consisted of fewer Shot, and of more Pikes; For besides the excellency of that Weapon, it is not only alwayes in a readiness for Service, but needs no Ammunition to make it do Execution; both which cannot be said of the Musket, which is often unfixt, requires alwayes Powder, Bullet, and Match, and in windy or wet weather, often disappoints the Service, especially if it be the Match-lock, and then to Fire-lock Muskets.

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Maurice Prince of Orange (a Famous Captain) was exceedingly desirous to introduce the *Target* among the Infantry; and having, for his own satisfaction, made many tryals of the great usefulness of it, experimentally found, that *Targets*, though very flippent ones, have not only resisted the Push of the Pikes, but also, that half the number of *Targetteers*, have entred into the Ranks of double their number of Pikes, without *Targets*, and have Routed them; but he being only General to the *States of the United Provinces*, and not a Sovereign Monarch, and Absolute, durst not make so great an Alteration, fearing the Reproach of some evil Success; which, whatever might have been the cause of the Defeat, would have been attributed to that of Innovation; For *States* oftner judge of the Merit of their General, by his Successes, than by his Reasons.

And *Henry Duke of Rohan*, whom I had the Honour to know in the year 1637. a little before he dyed of his Wounds received in *Alsatia*, and who yielded to none of his Age, in the Military Art, was also exceeding desirous to introduce the *Target* amongst the Infantry: He propos'd to have the principal Body of the Infantry to consist of *Pikemen*, and to each Battalion of Pikes, he would have had a small separated Party of a Hundred, or an Hundred and twenty *Targetteers* in the Flanks, when the Battalions were ready to join, *which* (to use his own words) *would produce a marvellous effect, in a Day Battel.* These *Targetters* he would have had composed of the Volunteers, who are generally of the bravest, and who, unless they made a Body apart, he thinks would be apt enough to beget Animosities, by disputing where their proper Stations should be assigned them.

I think they might also be of very good use, in Assaulting, and Defending of Breaches, especially if they were of proof against small shot: some of which sort I have seen, and yet they were not very cumberfom; for they might be used on the Left Arm, by men of ordinary strength.

I must, before I proceed any further, mind the great carelesness of those, who furnish Pikes to the Companies out of the Stores, and those Officers who receive them; For 'tis but too common amongst us, to have in one Regiment Pikes of several Lengths, and only arm'd at the Points with Lozange heads,

heads, whereas sixteen Foot and a half ought to be the general length and standard of all the Pikes, as 'tis among the *Switzers*; which if the Staff be made of season'd Ash, is not heavy for any ordinary man, and less heavy to Pikemen, who are usually the properest, and strongest men in our Companies. If our Pikes were All of sixteen Foot and a half long, besides the decency of that uniformity, the advantages will be great; For at sixteen Foot and a half distance, they of the first Rank, will keep off, or gall the Enemies Horse, and few ordinary Ammunition Pistols, do certain Execution much farther off; the second and third Rank of the Pikes (being so long) will also effectually serve to keep off the Enemies Horse, should the first Rank be killed, or disordered; nay, the fourth and fifth Ranks of the Pikes will not be useless: For allowing but three Foot distance between every Rank when Battalions front, as the first Rank will keep the Enemies Horse off, at sixteen Foot and a half; so the second Rank will keep them off, at thirteen Foot and a half; the third Rank at ten Foot and a half; the fourth Rank at seven Foot and a half; and the fifth Rank at four Foot and a half: whereby an Enemies Cavalry will have as it were five Ranks at once to break, ere they can make their impression, which therefore will be no easie task to perform, especially the last Ranks of Pikes being ready to supply those of the first five Ranks, who shall fall by wounds, or death.

The Pikes arm'd at the Points with Lozange heads, if the cheeks, or sides of the Pikes are not armed with thin Plates of Iron four Foot deep, are very apt to be broken off near the Heads, if the Push be vigorous, and the Resistance considerable: Not is this all; for unless the Pikes be armed with those thin Iron Plates, they are easily cut off with sharp Swords, for the Pike, especially toward the end, is carried tapering, to poise it the better, and thereby renders it the more flippent for those who use it; so that the slenderer part of the Pike, if unarm'd, is the more liable to be cut off, it being there nearest the Enemy; whereas if the Pikes were armed with those thin Plates, and four Foot deep, no cutting Swords (which are always of the shortest) could destroy the Pikes, since that part of the Staff of the Pike which is unarmed, would be out of the reach of the Horsemans sharp cutting

Sword : I remember we once carried a Fort by storm, because the Enemies Pikes had not those Plates, whereby the Heads of them were cut off.

I therefore am very desirous, that all our Pikes may be sixteen Foot and a half long, the Staves to be of seasoned Ash, which are strong, and light ; and that from the Iron heads of the Pikes, there may be thin Iron Plates for four Foot deep. Lozange Heads I like well, both because they are sharp to enter, and when entred, broad to wound with.

I would seriously recommend the Arming of our Pikemen, with Back , Breast , Pott , and Tases ; For since the Pikes ought to make the principal Battalion, and indeed the solid strength of the Infantry of an Army in a day Battel, I would have them Armed accordingly ; for 'tis under their Battalion that the Routed must Rally , and 'tis by the points of their Weapons, that the most obstructed passages to Victory must be opened ; they are still to be as it were the Forts of the Field, and are not like the Horse, and Shot, which move every way, and follow the Execution after the Enemy is broken; but being still to advance slowly with the Colours, and under their *Forrest*, to cover all Misadventures, they ought to be substantially Armed defensively, to answer those ends effectually.

Some Historians tell us, That when the Emperor *Charles the Fifth*, (that great Captain) was to give Battel near *Vienna*, to Sultan *Solyman the Magnificent*, the Christian Emperor had one Stand of Eighty thousand Pikes, many of them carried by Reformado Officers, and by the Flower of the Christian Nobility, and Gentry ; in which Battalion , under God, he had repos'd his greatest confidence ; and which the *Turks* did so apprehend, that after all the noise of a decisive Battel, the *Mahometans* retreated, though they had double the number of the Christians, and above One hundred and fifty thousand Horse.

It is both a grief, and a shame, to see how few Pikemen, in most of our ordinary Companies, have Swords by their sides, and the Musketeers seldom any ; when a man looks not like a Soldier, without a Sword ; and 'tis the Sword which does the chiefest Execution, either in the Battel, or after the Routing of an Enemy: The *Greeks* and *Romans* made it ignominious

minious for a Soldier to lose his Sword, even in Fight; I wish we would make it the like for a Soldier to go to Fight without his Sword, or indeed so much as to see a Soldier without his Sword. I offer to consideration, That all Companies, when first Inlisted, ought to be completely Armed at the Princes charge; and ever afterward, to be kept completely Armed at the Soldiers charge, unless in actual Fight his Arms be broken; in which case, the Kings Arsenals should furnish them. But whatever Captain of a Company, or inferiour Commissioned Officer, allow'd his Soldier to appear on Duty without his complete Arms, or ever to stir without his Sword in the Streets of his Garison, or in the Camp, if he punisht not the Soldier, should be punishable for it himself: And if any Soldier broke his Sword, or other Arms, by his own negligence, or default, the chief Officer of the Company should not only punish him for it, but forthwith supply him, to be defaulked out of the Soldiers growing Pay; whereby these three advantages would be gained, That the Soldiers would be more careful of their Arms; That they would never be unarmed; And that the King would be at no unnecessary charge in emptying his Arsenals for them.

As to the Musket, and what is useful to it, I find many things in my poor judgment worthy consideration and redress:

As first, That all our Muskets be of one Bore, or at most of two sorts of certain Bores; the bigger for the stronger, the lesser for the weaker Bodies: For want of this, I have seen much hazard undergone; for generally our Musket shot is of one certain size, and the Bores of Muskets are of various sizes, whereby having been once engaged in a Fight, which by reason of the many Inclosures in which we fought, the Musketeers were to be supplied with more shot than they carried in their Pouches, and Barrels of Musket Bullets being opened, few of the shot in them would fit the Muskets, but were a size too large, whereby we had like to have been worsted; for the Soldiers were forced to gnaw off much of the Lead, others to cut their Bullets; in which much time was lost, the Bullets flew a less way, and more uncertainly; and, which was worse, so many pauses, animated the Enemy, by making him think our Courages cooled. If there be two sizes of

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Muskets,

Muskets, and shot, on both ends of the Barrels, which hold the shot, should be written *Lesser*, and *Bigger*, that in the hurry of a Fight there might be no mistake, but that Bullets be distributed according to the Bores of the Muskets.

I would also propound, That in all Field Engagements, especially in those where we intend not to cheapen an Enemy, but to fall on merrily, that the Musketeers would load their Muskets only with five or six Pistol Bullets, which will do great Execution, especially Fired near, and then to fall in at Club Musket; I have Experimented this, and found it attended with great Success.

I would recommend the Fire-lock Musket above the Match-lock Musket, for several Reasons; some of which I shall mention.

First, It is exceedingly more ready; For with the Fire-lock you have only to Cock, and you are prepared to Shoot; but with your Match-lock, you have several motions, the least of which is as long a performing, as but that one of the other, and oftentimes much more hazardous; besides, if you Fire not the Match-lock Musket as soon as you have blown your Match, (which often, especially in Hedge-Fights, and in Sieges, you cannot do) you must a second time blow your Match, or the Ashes it gathers, hinders it from Firing.

Secondly, The Match is very dangerous, either where Bandleers are used, or where Soldiers run hastily in Fight to the Budge-barrel, to refill their Bandleers; I have often seen sad instances thereof.

Thirdly, Marching in the Nights, to avoid an Enemy, or to surprize one, or to assault a Fortrefs, the Matches often discover you, and informs the Enemy where you are; whereby you suffer much, and he obtains much.

Fourthly, In wet weather, the Pan of the Musket being made wide open for awhile, the Rain often deads the Powder, and the Match too; and in windy weather, blows away the Powder, ere the Match can touch the Pan: nay, often in very high Winds, I have seen the Sparks blown from the Match, Fire the Musket ere the Soldier meant it; and either thereby lose his Shot, or wound or kill some one before him.

Whereas

Whereas in the Fire-lock the motion is so sudden, that what makes the Cock fall on the Hammer, strikes the Fire, and opens the Pan at once.

Lastly, To omit many other Reasons, the quantity of Match used in an Army, does much add to the Baggage; and being of a very dry quality, naturally draws the moisture of the Air, which makes it relax, and consequently less fit, though carried in close Wagons: but if you march without Wagons, the Match is the more expos'd; and without being dried again in Ovens, is but of half the use which otherwise it would be of: And which is full as bad, the Skeans you give the Corporals, and the Links you give the private Soldiers, (of which near an Enemy, or on the ordinary Guard duty, they must never be unfurnished) if they Lodge in Huts or Tents, or if they keep Guard in the open Field, (as most often it happens) all the Match for instant service is too often render'd uncertain, or useless; nothing of all which can be said of the Flint, but much of it to the contrary.

And then the Soldiers generally wearing their Links of Match near the bottom of the Belt on which their Bandeleers are fastened, in wet weather, generally spoil the Match they have; and if they are to fight on a sudden, and in the Rain, you lose the use of your Small Shot, which is sometimes of irreparable prejudice.

I am also on long experience an Enemy to the use of Bandeleers, but a great Approver of Boxes of Cartridges; for then, but by biting off the bottom of the Cartridge, you charge your Musket for service with one Ramming.

I would have these Cartridge Boxes of Tin, as the Carabines use them, because they are not so apt to break as the Wooden ones are, and do not in wet Weather, or lying in the Tents, relax.

Besides, I have often seen much prejudice in the use of Bandeleers, which being worn in the Belts for them, above the Soldiers Coats, are often apt to take Fire, especially if the Match-lock Musket be used; and when they take Fire, they commonly wound, and often kill he that wears them, and those near him: For likely if one Bandeleer take Fire, all the rest do in that Collar; they often tangle those which use them on Service, when they have Fired, and are falling off by the

Flanks of the Files of the Intervals, to get into the Rear to Charge again.

To which I shall add, that in secret attempts in the night, their Ratling often discovers the design, and enables the Enemy to prevent it. And in the day time, on service, especially if the Weather be windy; their Ratling also, too frequently hinders the Soldiers from hearing, and consequently obeying the Officers word of Command, which must be fatal when it happens; whereas the Cartridge Boxes exempt those who use them from all these dangers and prejudices; they enable the Soldiers on Service, to Fire more expeditiously; they are also usually worn about the Waste of the Soldier, the Skirts of whose Doublet and his Coat, doubly defend them from all Rain that does not pierce both; and being worn close to his body, the heat thereof keeps the Powder dryer, and therefore more fit to be fired on service.

Besides all this, whoever loads his Musket with Cartridges, is sure the Bullet will not drop out, though he takes his aim under breast high, for the paper of the Cartridge keeps it in; whereas those Soldiers which on service take their Bullets out of their Mouths, (which is the nimblest way) or out of their Pouches, which is slow, seldom put any Paper, Tow, or Grass, to ram the Bullet in; whereby if they fire above breast high, the Bullet passes over the head of the Enemy; and if they aim low, the Bullet drops out ere the Musket is fired; and 'tis to this that I attribute the little Execution I have seen Musketeers do in time of Fight, though they fired at great Battalions, and those also reasonable near.

It might also do well, if the Soldiers tyed their Links of Match about their middle, and under their Coats, and Doublets, instead of tying them to their Bandeleer Belt, or Collar; for by that means, the Match would be kept dryer, and fitter for service, in time of Action.

As to the Arming of the Cavalry both for Offence and Defence, I am of opinion, the Arms we use, are as good as any, *viz.* the Swords, Pistols, and Carabines: And if in the Front of our Squadrons, we had some *Blunderbushes*, they might be of good use in Fight.

I acknowledge I would have every private Trooper have his Sword, or Long Tuck, his Case of Pistols, and Carabine; and

and for defence, his Back, Breast and Pott; at least, I would have the Front and Flanks of every Troop in such Armor: For besides the Terror it gives to an Enemy in his Doublet, to fight with men of Iron, and the encouragement it gives our own men; none knows what proof the Armor is of: And 'tis most certain, that in Combat, as well as Pursuit, the Sword does most Execution; and no Armor is less than Sword proof: I therefore earnestly wish, that the Officers, the Troopers, and the Pikemen, were bound under severe Penalties, to fight in Armor, and constantly to march in Armor; which piece of Discipline, if it were revived by strict Commands, and if broken punish'd Exemplarily, I am confident the advantages would be considerable; Nor do I much value what our young Gallants say, that in their Doublets they will Charge as far as any in their Armor; since to that I answer: First, it may spring as much from Laziness, as Courage: But secondly, a wise Commander ought to have more care of his Soldiers safeties, than they will have of their own; and ought not to let his men expose themselves, but where there is need; and then to use the best means he can for their safety, as well as their success; since the business is not who dares go to be kill'd, but who dares venture his Life on the best terms to obtain the Victory; and if men will go on boldly without Armor, 'tis likelier they will Charge the bravelier with Armor; since their Bodies by it, have the greater defence; and by accustoming themselves to wear Iron, it will become habitual to them.

If I might follow my own opinion, I would have every Regiment of Horse consist of seven Troops, six whereof should be Armed with Back, Breast and Pott; and for offence, should have Swords or Tucks, with Pistols and Carabines; and the seventh Troop should be of *Firelocks*, or *Dragoons*, whose duty should be to guard the Quarter of the Regiment; to secure Passes with Celerity; to force Passes possess'd by the Enemy; to assist the Horse when they fight in enclosed Countries; and in Battels, to alight; and marching up in the outermost Flank of the Regiment, should in two Ranks, the first kneeling, the second standing, a little before the Squadrons Charged, Fire upon the Enemy, their Guns loaden with Pistol Bullets, which I have sometimes practis'd, and found it

attended with great success; every tenth man while the rest were on such service, was to hold the Horses of those who were thus employed; and if the Enemy were Routed, they were all to mount again, and to follow the execution: But if the Enemy Routed us, they were to shelter themselves behind the next Squadrons of our Horse which were entire, or the next Battalion of our Foot; and when Rallied, to serve as they should be commanded by the chief Officer of that Squadron, or Battalion, under the countenance of which, they should Rally.

I know the *French*, *Spaniards*, and other Nations, have had distinct Troops of Carabines; but, in my poor opinion, Carabines are best in the Troopers hands who are Armed, and have Pistols; especially if every Regiment of Horse has one Troop of Firelocks, or Dragoons; and I have ground to believe, that Dragoons thus annexed to the Horse, are much better than they are, when Regimented entire, and by themselves:

First, Because they are constantly with the Horse, and being in effect a part of their Body, are alwayes the more careful of them, the more ready to serve with them, and the more concern'd for them.

Secondly, Being under the Command of the Field Officers, and Captains of Horse, they are more obedient to them, than if they belonged to other Colonels, and were only a commanded Party to answer a present need.

Thirdly, The Horse Commanders, when the Dragoons belong to their own Regiments, are more careful of them, and will not needlessly harass them by extraordinary and unequal duty; which when they have their assistance but on emergent occasions I have often seen them do.

Fourthly, The Horse Officers knowing all their Dragoons by name, and they knowing particularly all the Horse Officers, they are the more likely to fight chearfully for them, or not to escape unpunished if they be remiss; for every one being known, none can escape by ignorance; the contrary to which is often experimented in commanded Parties, when the Officers are unknown to the Soldiers, and the Soldiers to the Officers.

Lastly,

Lastly, To omit many other particulars, some have observed, that as the Dragoons are commonly the briskest, and daringst of the private Soldiers, so they are also the least sober; and 'tis likelier to wean them from that fault, when they are but a seventh part of the Regiments, than when they are an entire Regiment, and all Birds of one Feather: And the Troopers being generally a more civilized, orderly People, than the Dragoons; 'tis probable that the major part by much of the Regiment, should win the minor by good example; than that the minor by much, should seduce the major part.

To conclude this Head of my Essay, I will only add, It is not sufficient to make good Rules, unless the Prince or General see them punctually obey'd, or severely punish'd, if broken. For besides the evil which attends the omitting of what is good, the contempt of Authority is of fatal consequence in all Humane Affairs, and most of all in Military; where, though what is commanded might have been indifferent it self, yet it ceases to be so, when it is commanded; and if a Soldier of himself may break one Rule of the Generals unpunish'd, he may believe thereby, that he may as well break any, nay, all the rest; for the stamp of Authority is alike on all; of which when a private person, or many private men make themselves the Judges, they bid defiance to all Discipline; without which no Society can subsist, and Military ones the least of any: In one word, it were much better that good Rules were not made, than if made, that they should not be observed, and the breakers of them 'scape unpunish'd.

The Disciplining of the Soldiery.

I Shall not under this Head amuse my self to speak of the Handling of Arms; nor of the several Postures and Motions taught the Soldiers; nor of the divers wayes of Exercising of a Troop, or Company; since we have in our own Language so many printed Books on that subject. And I am also the less curious in doing it, because though there be many fine things taught in those particulars, which are graceful to the sight, and make Soldiers the more ready; yet when we come in earnest to fight, few of them are practised, but to keep their Ranks even and close, their Files right; to fire nimbly, and but breast high; to charge boldly with the Pikes, and through with the Horse; to be watchful of the word of Command from the Officer; exactly obedient to it, to keep silence; And when the Parties are numerous enough to compose Battalions, and Squadrons, to observe in going to the Charge the just wideness of the Intervals for the Reserves, or second Line to relieve the first Line: But if there must be any Error therein, to be sure the Interval ground be rather enlarged, than streightned. For 'tis better the Reserves should have too much room to march up to the Front, than too little, since the latter will render them almost useless.

But before I come to Treat of that part of Disciplining the Soldiery, which consists in drawing them up into Battalions, and Squadrons, which I intend to discourse of when I come to Treat of Battels; I shall crave leave to offer some Considerations on what we generally observe, and seldom or never alter whatever the occasion requires. And that is, the drawing up our Shot, and Pike, six deep; and our Horse, three deep.

And this I should not presume to do, had not I been emboldened to it by some Experiments of my own, which God did bless with success: For when I found my self over-winged by the Enemy, they drawing up their Foot six deep, and their Horse three deep; I judged it best for me to Fight my Foot four deep, and my Horse two deep; whereby I added
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one third of more hands to the Front, and Breadth, of my Battalions, and Squadrons. For I was fully satisfied, that it was likelier I should be worsted by the Enemy, if he fell into my Flanks and Rear, holding me also to equal Play in the Front, than if four Ranks of my Foot should be broken, or two Ranks of my Horse, that the third Rank of the Horse, and the fifth and sixth Ranks of my Foot, should recover all again; for I had often seen Battalions and Squadrons defeated, by being overwinged: But I never saw the last Rank of the Horse, and the two last Ranks of the Foot, restore the Field, when the four first Ranks of the Foot, and the two first Ranks of the Horse were Routed. For commonly if the two first Ranks of the Horse are Routed, they themselves (for they still are broken inward) Rout the third Rank; and though the like cannot truly be said of the Foot in all points, yet in a great measure it usually follows.

But I must confess, that he who makes such an alteration in Military Discipline, (unless he be a Sovereign Prince, or have sufficient Orders to do it) ought to resolve, his success only must Apologize for it; that is, to be victorious, or be kill'd.

I should therefore humbly desire, that fighting no deeper than four for the Foot, and two for the Horse, where the ground is fit, might well be considered; and then let true Reason give the Rule.

For my own part, I will ingeniously acknowledge, that after having as thoroughly weighed all the Arguments for and against it, as my weak judgment could suggest to me, I would, without hesitation, (if it were left to my own Election) fight my Foot and Horse no deeper than four, and two, in any case where the ground would admit me to extend my Battalions and Squadrons to the full. For if I fight against equal Numbers, and equally good Soldiers to my own, 'tis more likely falling into their Flanks, and as much into their Rear also, as I overwing them the depth of a File in each Flank, that I shall Rout them; then it is, that before I perform that, they shall have pierced through my four Ranks, since Rank to Rank of equally good Soldiers, and equal in Number, will more probably hold longer play one with the other, than Soldiers equally good, can defend themselves at once, if briskly char-

ged in Front, Flanks, and Rear ; and since the Flanks and Rear of Foot themselves, fight with great disadvantage against those who Charge them there all at once ; but when Horse are Charged in the Flanks, and in the Rear, 'tis next of kin to a miracle, if they 'scape being broken : For the Troopers in the Ranks when they go to Charge, are as close as the Riders knees can endure it ; and therefore 'tis impossible for the Flanks to do any thing, or the last Rank to face about, and consequently they must have their backs expos'd to the Shot, and Swords of their Enemy. The Foot indeed will easily face about ; but then if the depth of Files be the advantage, I have it who Charge everywhere four deep, and they every way defend, but three deep at the most.

If this way of fighting will afford me solid, and great advantages, against an Enemy equal to me in the goodness and number of his Soldiers ; I do not think it can be denied, but if I fight against fewer, or worse men than mine, but greater, and more certain benefits will result from it.

The chief Objection to this way of fighting that I know of, is, as to the Musketeers, who being but four deep, and advancing firing, the first Rank cannot have loaded their Muskets again, by that time the fourth Rank has done firing ; so that there will be an intermission of shooting. To that I answer, Let the Musketeers Charge their Muskets with such Cartridges as I have mentioned, and the first Rank will be as soon ready if you are but four deep, as the first Rank will be if you are six deep, loading with *Bandealers*, especially if I use the *Fire-lock*, and the Enemy the *Match-lock*. Besides, you will still have a Rank to fire till you fall in, if you begin to fire but at a short distance ; which I would do to choose, if I were six deep. Lastly, were both these denied, which yet I must say I have on Experiment found to be true, and a demonstration is the strongest proof. It is not enough to say, one method hath such Objections to it, which the other hath not ; but all Objections to both methods are to be examined ; and that Rule is to be observed, which on the whole matter has the least : For how few things in the world would be entertained as best, if only such were so, against which, no Objection could be made.

The first of the Ancients which I have read of, who found it much more advantageous when the ground allowed it, rather to extend the Ranks, than deepen the Files, was that great Captain *Cyrus*, in his famous Battel against *Cressus*, King of *Lydia*; for *Cyrus* finding himself over numbred, took off half the depth of his Files, and added them to his Front, whereby he won the Victory by overwinging *Cressus*.

As the drawing up the Infantry but four deep, and the Cavalry but two deep, where the ground will allow it, has great advantages in Fight, over those who draw up the Foot six deep, and the Horse three deep, so it has in marching; for the shallower the Files are in the several Divisions, the shorter the Army or Regiment must be in their long march; which is a great ease to the Soldiers in and towards the Rear of the Army, or Regiment: For I have often seen, but am not Philosopher enough to give the reason of it, that let but 1000 men march in their long march even in a bare Champion Country; and though the Van move very slowly, yet the Rear must trot to keep the same distance they were at, at their first beginning to march; and if it be thus but in 1000 men, what must it be in 20, or 30000 men.

Besides, the less long your Army is in their marching order, the sooner the Rear of it will be come up, to incamp, or to go to Quarters, and the Baggage and Train also; nor is it less beneficial, if an Army during its march has the Head, or the Rear of it assaulted, or both at once; to have the Division come more expeditiously to the Fight, which it has, by making the Ranks of the Division broader, and the Files shallower.

The ordinary Discipline we observe in drawing up a Foot Regiment of ten Companies in Battalia, (which 'tis well if they make Nine hundred effective Men in Rank and File) is either in one Battalion, (which is seldom practised, but when the Army is very great) or in two or three Battalions, which are the more usual wayes, and I think the more rational. For the greater your Battalions are of Foot, or Squadrons of Horse, the more unwieldy they are; and not only the likelier to be Disordered, but the harder to be Rallied into their due form again; whereas when

Battalions, or Squadrons, are of a competent number, those inconveniencies are avoided; and yet if need require, two may join and make one big one; but still the same Officers to command each Battalion, as if they were divided, though really they are united; whereby they keep the activeness of small Battalions, and when they please, the strength of great ones by their union. And men are readilier brought into order after being broken, or discomposed, when a chief Commander assisted by his inferior Commissioned Officers, do act separately among a few, than when but one, though proportionately assisted, acts singly in chief over many.

A Regiment of Horse also which usually consists of six Troops, is formed into two Squadrons, each of three Troops; or into three Squadrons, each of two Troops; I am for the forming it generally into the most Squadrons, for the same Reasons I mentioned before: Besides, great Battalions of Foot are more allowable, than great Squadrons of Horse; not only because men on Foot take up less room to turn in, than men on Horseback do; but also because men only, are better commanded than men and horses can be; especially in the hurry of a Fight, where the shouts of the Soldiers, the noise of the Shooting, and the Drums, and the fluttering of the Colours, make often the boldest Horses of private Troopers disorderly enough; and likewise because the Foot are the solid steddyy Body of the Army, especially the Pikes, and are not to follow the Execution, which is the proper duty of the Horse; and therefore the Foot may consist of the larger Battalions.

To which I shall add, that a Regiment of Five hundred Horse, consisting of six Troops, having three Troops united into one Squadron, will make upwards of Eighty one private Troopers in every Rank, when the Horse are drawn up three deep; and if in two Troops in a Squadron, three deep will make 55 in a Rank: And I have seen old Troopers find it difficult enough to march in one Squadron a small space of ground in exact order, Forty a-breast, though the ground be plain; but if it be any wayes incumbred, or uneven, 'tis more hard to do it. And then if your Horse be drawn up but two deep, each Squadron, though but of one Troop, will be Forty one in a Rank, which is broad enough; for the broader the
Rank

Rank is, the more difficult it is to march it orderly ; so that I am more desirous to form the Horse of an Army into many and less Squadrons, than into few, and great ones ; for the Reasons before exprest.

I had in this place begun to set down the several sorts of Discipline which are practised in drawing up a Regiment of Foot in one, two, or three Battalions, where the Colours should flie, how many divisions of Pikes and Shot there ought to be, and where to be drawn up, and of how many Files each should consist of, (according to our Discipline of having our Foot consist one third of Pikes, and two thirds of Shot) where are the proper places of the Field Officers, and Commissioned Officers, according to the several Forms of Battalions the Regiment is to be drawn up in, and many other Particularities of this Head ; But since there are Printed Books also in *English* on this Subject, I shall refer the curious, and the unknowing therein, to those Books, and only apply my self to such things as I have not seen, or heard, hath hitherto been treated of in our Language ; and I also do this the rather, because under the Head of the Essay which shall treat of fighting a Battel, I shall discourse of forming Battalions and Squadrons more particularly.

And though possibly I might without any impropriety under the title of Disciplining, insert all the several Functions in War. Yet I shall divide them into many distinct Heads, for the ease of the Reader ; who commonly is better pleased to peruse many short Discourses, than one very long one ; and every one, having a distinct title, is more readily turn'd unto, and found out.

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THE

The Ordering of Garisons.

HAVING already discours'd of the Choofing and Educating of the Soldiery, of the Arming, and of the Disciplining of them, I shall now write of the Regulating of Garisons, which seems to me to be the next Head in course to be Treated of.

The Well-ordering of them, is the hopefulest way to preserve them ; and the preservation of them, is the preservation of a Kingdom.

How many Armies have been ruin'd, or broken, before Garisons resolutely defended, and according to the exact Rules of the Military Art ? And how many Garisons have been lost, or surprized, for want of due care in those entrusted to keep them, whereby whole Countries have been subdued as the consequence of one neglect ? especially if the Garison taken, be either the chief Arsenal of the Countrey, or lie on some Navigable River, or Sea-Port, whereby the entrance into a Kingdom, is facilitated to an Enemy ; and into which he durst not have adventur'd, while he left at his back so important a place.

I shall therefore on this Head, set down

First, The usual practice in appointing and distributing the *Guards*.

Secondly, The custom in going the *Grand Round*.

Thirdly, The common manner of giving the *Word*.

For the ordinary course in all three, I suppose (submitting it still to better judgments) may be unsafe, and very hazardous.

Therefore where I have had the Honour to command in Chief, I have altered the usual Form, and I believe with good reason, else I am sure I would not have done it.

But I am certain the Methods I have observed therein, have still succeeded well ; and by the other Methods, I have known great Losses have followed.

The usual way is, that the Regiments, or Companies, or Parties of Soldiers, which are next to mount the *Guard*, and to relieve

relieve those on Duty, being drawn up at the *Parade*, the chief Officer who is to command the Watch, or the Town Major, distributes the Companies, or Soldiers, to the *Main-Guard*, the *Ports*, and *Bie-Guards*, as he thinks fit, which I would not allow for these following Reasons.

If an Officer who commands the Watch, or the Town Major, be false, corrupted, or corruptable, you thereby expose the Garison to be lost, and those in it, destroy'd ;

Since leaving it to him to appoint all the Guards, he may send those of his Confederacy to such *Corps Deguards* as may let in the Enemy, or join with Conspirators within the Walls.

And though it is generally presum'd, that an Officer fit to command the Watch, or a Town Major, will not be a Traytor, yet many experiences have evidenc'd the contrary ; and in War especially, we ought not to rely on what an inferior Officer will not do, but on what he cannot do.

Therefore I would never leave that Trust to a subordinate Officer, but expect and require the Governor to discharge it in person ; yet if sickness, or other invincible impediment hindered him from doing it himself, I would then have him appoint the Guards to be drawn by *Lots* ; and this as well when an Enemy is not near, as when he is.

For if only on the Vicinity of the Enemy you do it, you let the Inhabitants and Soldiery of the place too evidently see, you suspect your own Garison are not all right, which may be of ill consequence ; but if you practise it alwayes, That will pass for Discipline, which otherwise will be judged suspicion.

Besides, if this method be the best in case of danger, it will be also the best constantly ; for in time of War, especially in Garisons where there are many Inhabitants, who can know when danger and treachery is at hand ; and therefore that Rule which is best when it is near, is best alwayes.

Therefore I esteem the way I propose is the most eligible, because it is the safest ; for unless the Governor himself be false, (in which case what can preserve a Garison) or unless the Lot drawn, places the Conspirators in those very Guards and Posts where they would choose to be, (which would prove as rare Accidents indeed) the Fortress will be

be freed from the fatal effects of internal Conspirations.

A second thing which I object against, is, that usually at the *Parade*, the Quarter-Masters, and Serjeants, receive the Word in a Ring, from the Governor, Captain of the Watch, or the Town Major, and so being whisper'd from ear to ear, returns to him who gives it; whereby if any mistake be in the Word, it is rectified before it is distributed; which as to the *modus* is good, but as to the time of distributing and giving of the Word, is dangerous; for commonly the Word is given at the *Parade*, when the Relievers come to relieve those on Duty, which usually is in the day-time, and before the Ports of the Garrison are shut, whereby any Quarter-Master, Serjeant, or superior Officer, may communicate it to the Enemy abroad, or to Conspirators within; which may be of sad consequence.

For prevention of which, I would never give the Watchword, till just as the *Tap-too* is gone about: And when it Beats, all the Quarter-Masters and Serjeants should from the Governor receive the Word, and immediately distribute it. It is also too usual in great Garrisons to have the Word given in writing for a Week to come, to the Officer who is Nightly to distribute it; which I am utterly against: For should he be false, or negligent, or let it accidentally fall out of his Pocket; or should he be overlook'd when he reads it; or should he have any false Servant about him who might by Night steal it out of his Pocket, Copy, and then put it up again, it might more than hazard all; so that in my poor opinion, the Word should only be known and given out every Night, just when it ought to be distributed, for that is safe, the other way very hazardous.

A third thing which I humbly offer to be mended, is the use in going the *Grand Round*, which as it is generally practised, is what I have often lamented, and admire that Garrisons have not frequently been betray'd thereby.

The custom is, that a Field Officer, if the Garrison be numerous, or at least a Commission'd Officer, takes a Guard of Soldiers with him, and so attended, goes to the *Grand Round* at any hour he will, after *Tap-too*; when he comes to any Port, or Bie-Guard, the Centinel of it challenges him,
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he answers, the *Grand Round*; the Centry then calls the chief Officer on that Guard, who comes out, and draws out his Guard; the Officer that goes the *Grand Round*, receives the *Word* from the Officer of that Guard, and sees if the Guard be full and vigilant; but from all *Rounds*, except the *Grand Round*, the Officer of the Guard does not give the *Word*, but receives it.

This being the usual Form, were it not but too easie a thing for any Conspirators in the Garison, especially if a Commission Officer in it, were of the number, to get three or four Files of Men with him, and go as the *Grand Round*, before the true *Grand Round* does go, whereby those Conspirators will not only learn the *Word*, but also see how strong and vigilant all the Guards are of the Garison, (except the *Main Guard*) and if they find any weak, or negligent, especially in the Ports, or on the Bastions, they may surprize, cut them off, and let in the Enemy with whom they are in consort.

To prevent which mischief, I did still observe these two Rules where I was Governor; when I gave the *Watch-word*, I also named the Officer which that night I had ordered to go the *Grand Round*, which was carried to all the Officers of the Garison, whereby if any Traytor took upon him to go the *Grand Round*, every Guard might know he was a Counterfeit, and by securing, or killing him, prevent the mischief; and because in very great Garisons it might so happen, that every Officer was not known at first to all the Officers of it, and also that the Officer who I gave out in orders should go the *Grand Round*, might by some Accident be disabled to do it.

I gave a particular *Word* for the *Grand Round*, and ordered when ever the *Grand Round* went, and was challeng'd by any Guard, the Officer of that Guard, should not give him the *Word*, nor admit him with the Soldiers that accompanied him within his *Guard*, until he had first given the Guard Officer the *Word* of the *Grand Round*, which every night was given out with the *Watch-word*; and the *Grand Round Word* being first given to the Officer of the *Guard*, by the *Grand Round Officer*, then the Guard Officer gave him the *Watch-word*, and not before.

Hereby no body could walk the *Grand Round* deceitfully, for without the *Grand Round Word*, he could not be received as the *Grand Round*, nor come within any Guard, nor receive the *Watch-word* from any Officer of the Guard.

The three chief ends of the *Grand Round* are,

First, That some prime Officer, might see if the Guards and Centinels of them be posted, and set out, as appointed.

Secondly, If they are vigilant in their duty, and the number of the Guards full; for which reason, the Officer who goes the *Grand Round*, ought to know of how many Officers, Non-Commission'd Officers, and private Soldiers, every individual Guard is to consist; That if he finds any wanting, he may acquaint the Governor with it, that the Faulty may be punish'd; and if any numbers on any Guard be wanting of what they ought to be, immediately to supply them from the Main Guard.

Thirdly, That no Guard knowing when that prime Officer will go his *Grand Round*, all the Guards may be the more vigilant, and full; for I have known when *Grand Rounds* have gone early in the night, or at a set hour, the Guards would be watchful, and full, till the *Grand Round* had gone, and then Officers would go off themselves, and connive at some of the Soldiers doing the like; which evidenc'd they more feared to be punish'd by their Governor, than to be surprized by their Enemy; but unless they doing exactly their duty, proceeds from an apprehension of both, it is a great fault; and if not alwayes severely punish'd, may too probably be the loss of the Garison.

Having thus offered to consideration these three particulars, and propounded the Remedy to them, I shall now proceed to those general Rules which seem indispensibly requisite to be observed in all well regulated Garisons. One standing Maxim is, that the several Guards which are to do the constant Duty, be alwayes so advisedly, and cautiously posted, and distributed; and the Centinels of every Guard, so set out round the whole Garison, that it shall be impossible, if the Guards and Centinels do their Duty, for an Enemy from without, or Conspirators within, to attack you without timely notice; in doing whereof, much will depend upon the dis-

discretion of the Governor, and his subalterne Officers. In Calm, and Moon-shine nights, I would set out my Centinels thinner, and at a greater distance; but in dark and tempestuous nights, I would set them thicker, and have double Centries; for in wet and windy nights, a Centinels Musket on his discovery of an Enemy, may not go off; and in that case, if there be but a single Centry, he will run off, and give the Alarm; whereby if the Enemy plants a scaling Ladder by reason of the Centinels absence, he may uninterruptedly do it: whereas if there be double Centinels, and both their Muskets should fail of firing, one of them may run off to the Guard, call for, and send Help, and without noise have in a readiness the Guard to fall unexpectedly on the Assailters, while the Centinel that stayes, may hinder a scaling Ladder to be fix'd on the Parroquet, or Town Wall; for the Ladder being long, and the height from the bottom of the Graft, to the top of the Parroquet considerable; one, at that height, will with his hand turn off a Ladder more easily, than as many as can come to handle a Ladder at the bottom, can raise it to the top.

I knew a very important Garison, between *France* and *Italy*, enter'd by the Enemy in a windy, dark, and stormy night, there being but one Centinel in a place, whose Musket failing, he ran off to cry, *Arm, Arm*, whereby the Enemy clap'd up their Ladder where the Centry had stood, and enter'd, before any came to oppose them; but they were beaten out at last, almost miraculously.

When the Guards and Centries day and night are well posted, and disposed of about the outward circumference of the whole Garison; the next care ought to be, to look well to all within; and to be the more circumspect if you have the least reason to doubt the Inhabitants are false to you; Therefore the Governor ought to have *Patroles* constantly moving all night, and Guards in all *Piazzas*, or open places where Conspirators may imbody, and place Centries in every street, and good Guards on his Magazines, or *Arsenals*, which ought alwayes to be kept in several places, lest by Casualty, or Treachery, one of them should take fire, the Garison might remain unfurnished for necessaries for its defence, and thereby become exposed. Nor is it amiss for a
Gover-

Governor, if he suspects Conspiracy amongst the Inhabitants, seemingly to use with harshness one, or more faithful Officers, who may thereby, by secretly consorting with ill affected Inhabitants, insinuate themselves into their *Cabals*, turn them from dangerous designs, and discover privately and frequently all they do to the Governor; and if he has ground to suspect the Fidelity of any of his own Companies, 'tis requisite that he should have secretly in every Troop, and Company, two of it at least, who for good Rewards, would be covertly his Intelligencers; and for making them the more usefully such, he must allow them to talk at the highest with the discontented at their private meetings, or on their Guards. But when he has gained two or more in every Company, he ought not to let any one of them know, who are his other Intelligencers, for many good Reasons; some of which are, that it augments a diligent Spies care, when he believes he only is relied upon for Advertisements; by comparing what they severally inform the Governor of, he may the clearer know if their intelligence be true, whereas if they act in conjunction, they may frame Informations to get the greater Rewards; which if but one does, the other will detect it; when they are in concert they will be often whispering, and thereby either discover what they are, or give the rest of the Soldiers jealousy, which will render them the less useful; these Intelligencers the Governor must often use in publick, roughlier than any other Soldiers, that the rest of their Comrades may be the less doubtful of them.

The often sending of *Rounds*, and *Counter-Rounds*, to visit the Guards, and Centinels, must never be omitted; and a vigilant Governor ought to go them frequently himself, and all Officers are to be strictly required by him, to give constant account to him, from time to time, of whatever they observe in the Garrison; that accordingly he may take his measures on such Informations.

He ought also frequently in person to visit thoroughly his *Arcenal* and *Magazine* of Victuals, both which he must always keep plentifully, and well furnished, and in good order.

In the first he must see the Arms well fixed, and kept dry, as also the Carriages of the Ordnance which are not planted,
and

and exposed to the weather, must once in six months be new pitched, or painted with oyl Colours, whereby a little charge may still preserve them.

Every Barrel of Powder ought once a month at least, to be turn'd topsie turvy in the Cask; for if it be not, all the Salt-Peeter will work to the bottom, and leave the upper part of the Powder in the Cask weak and clotty; the Powder also ought to be Aired once a year in the Sun, and such Barrels as need it, ought to be refreshed and reanimated.

The Match must be kept in great dry Fats, and on boarded Floors, lest it relax, and become useless; and where any moisture may have gotten to it, it must be baked in Ovens to recover it.

The *Magazine* of Victuals, which as the *Arsenal* for Arms ought to be kept in two distinct places to prevent accidents, or treachery; must carefully and often be visited by the Governor in person. who is not to rely therein, upon the honesty and care of the best Commissaries; the Wheat in them must be laid thin, and often turn'd, else it will heat, and be loathed by the Soldiery, who when on most danger and duty, (as in time of a Siege) ought not to have their Staff of Life nauseous unto them.

Bisket, Butter, Cheese, and Oatmeal, if carefully look'd unto, would be better relish'd, and keep longer than most Flesh or Fish salted, and are commonly in Sieges better liked by the Soldiery; for they carry their Bread, Butter and Cheese with them to their Guards, those being dress'd to their hands without their labour to cook it, or to get fire to do it; and make them less thirsty by much, than powdered, or dried Flesh, or Fish. The Oatmeal also Boiled in their Quarters, is a great refreshment to them, and very grateful, whether they be sick or well.

As a Governor ought always to have his *Magazines* plentifully furnished, so he ought to take great care that before any sort of Provisions in them decay, to sell them off, and buy fresh; but still to have as much of the fresh brought in, before the decaying ones are taken out of the Store-houses; for else an Enemy who has a design on the Garison, may employ a Correspondent in it, to buy off the decaying Provisions, and promise a supply of fresh ones; but when he has

gotten the old, he may fail of bringing in the new, which may be the loss of the place; wherefore the Governor ought still to make the change by little and little, to prevent that fraud and ruine.

He ought also to take constant care that none of his Garison be insolent, or so much as disrespectful to the *Civil Magistrates*, or Inhabitants; for if those which are employ'd to protect them, become their Tyrants, it makes them in Sieges, or Dangers, apt to conspire to change their Masters; at least it makes them unready to assist, or supply the Garison, since the service of Fear is alwayes paid with reluctancy, but that of Love with chearfulness. And every one that lives at ease in a Garison, makes it his delight, as well as it his interest, to contribute what he can to preserve it.

The Sacred Scripture teacheth us, *That a City which is divided, cannot stand.*

A Governor need not be at much, or constant trouble, to bring this one essential thing to pass; for two or three smart Examples imposed on the Faulty, will deter the rest from committing the like offences; for the Soldiery seldom repeat those Crimes, which they know their chief Commander does distaste, and will certainly punish.

And as on the one side, the Military Power must be respectful to the Civil, so the Civil Authority ought to be kind to the Soldiery; 'tis very rare where the former is constantly practis'd, that the latter is omitted; but 'tis rare indeed where the Garison is churlish, to find the Magistrates obliging.

The Inhabitants of Towns are commonly a sort of People, who are gain'd by the good usage of those who have the power to treat them ill; but are soon lost to those, who being paid to protect them, do notwithstanding abuse them: The harmony between the *Gown*, and the *Sword*, is absolutely necessary; and may with facility be attain'd, by the good conduct and discretion of the chiefs of both Parties.

I have had the Honour to be the Governor of several Garisons, and by punishing irremittably the least rudeness of the Soldiery, to the Inhabitants, I never desired any thing of these, for those, that was denied me.

Another

Another chief care of a Governor, is, often to visit the Works, and Outworks of a Garison, and speedily to repair the least decayes in them ; for delayes therein, are unsafe to the Garison, and chargeable to the Prince; since what at first would mend a breach substantially, will in time be of great expence to do it ; since decayes in Fortifications, are like Interest money, they eat into the Purse day and night, till the Principle be paid ; and it may be too late to mend Fortifications, when an Enemy comes to attack them.

He ought also to cause the Guard-houses and Centry-houses to be kept in good repair, and cleanly, alwayes making those who are Relieved, to deliver them up such to the Relievers.

On every Guard, I would still have a competent proportion of Powder, Match, and Bullet, under Lock, and Key, at such a distance from the Fire in the Guard house, as may not endanger the Powder.

And the Relieved Officer, from time to time, should, before he quits the Guard, shew the Relieving Officer that the Ammunition that he receiv'd when he mounted the Guard, is not prejudic'd or diminished, and then give him up the Key of it, that he may practise the like Rule towards the Officer who is next to succeed him.

The lodging in this manner of a Barrel of Powder, or more, with Match, and Ball proportionable, in every Guard, is very requisite ; for in case of any sudden danger, it will be too late to send for a supply to the *Arcenals* ; and if all the Guards send thither at once, it may be unsafe ; whereas leaving a quantity on every Guard as is before set down, it is there ready on the place when it is needful, and cannot be spoil'd, or imbezled, but it must be known by whom ; and the Officer who commands the Guard, if such a miscarriage happens, ought to be answerable for it out of his own Pay, with such further punishments for his neglect, or worse, as a Court Marshal shall think fit to judge, or inflict.

The Centry-houses I mention, ought to be placed at every point of a Bastion ; at the shoulders of every Bastion, and equal and competent distances along the Curtain, and where there are any *Cavaliers* on the height of them, because of their commanding prospect ; I know many are against Centry

try-houses, alledging, that the Centinels in them being dry, and warm, are the apter to sleep, and the unlikelier to hear any noise, three sides of the four of the house, being usually closed. But on the other hand, in wet, stormy, or very sharp nights, unless Soldiers have some shelter, they too usually fall sick; besides, I would never allow a seat in a Centry-house, and it is not probable that a man will fall asleep standing upright; especially, when he knows if he be found asleep by the Round, or those who Relieve him, he is to dye for it Nor would I have the three sides of the Centry-house shut up, as is usual; but wooden Windows to the three sides, whereby the Centry need but to have one, or at most, two of those windows shut, so as he may the easier hear any noise; nor ought he to keep in it, but on exceeding sharp, or wet weather; for as a Governor is to exact all necessary duties from his Soldiers, so he should not require needless ones; especially such as will endanger their healths, and consequently their lives.

A Governor ought of course, weekly at least, to hold *Court Marshals* in his Garison; whereby the Soldiers are more deter'd from committing offences, knowing how soon and certainly they must be punish'd if they do. I would allow every Company of the Garison annually one Barrel of Powder, with Match and Ball proportionable; and every Troop one Barrel of Pistol Powder, and the like of Ball, for their Guards exercising and Solemnities; and they should have no more, unless commanded on service: for if they are not stinted in such allowance, they will be still craving, and prodigal.

The often exercising of the Soldiers of a Garison in the Fields, under the Works, or in Piazza's, (if large enough) is very requisite; and when they are drawn on duty, out of the Works, those in the Works must be doubly diligent: Nor is it amiss on the Guards at night, and in the day, for the Officers on those Guards, to exercise those Soldiers there, and teach them more readily to handle their Arms, especially if any among them be new men.

However such exercising on Guards, keeps them waking, and is instructive, and also deters Conspirators from hoping to surprize those, who are both alwayes awake and improving their

their time the better to serve their Prince. It is one great part of the duty of a vigilant Governor in case any Fire happen in his Garison, or any great Tumult arise among the people, immediately to shut up all the Ports of the Garison, to draw all the Soldiers of it into Arms, and with expedition to distribute them to the most advantageous places, as Piazza's, Market-places, the meeting of several streets, &c. and on no terms to let any of the Garison Soldiers quit their Colours, and lay down their Arms to quench the Fire, without express orders for it; since if those Rules be not punctually observed, an Enemy who has a design upon the place, may set some Houses on Fire, or raise Tumults, to engage the Garison to suppress both; and while they are confusedly doing it, he may with the more facility cut them off: But when the Ports are shut, and well man'd, the Guards on Duty, all the Garison in Arms, and most advantageously distributed, and none to stir from their stations without express order from the Governor, or the chief Officers of them; his hopes to prevail by such attempts will be so small, as he will hardly make any, or if he do, probably be disappointed.

It is the Duty of a Governor also to have an Hospital in his Government with comperent Officers, Attendants, and other conveniences for the sick and wounded, as a Physician, an Apothecary, a Chyrurgion, with his Mates, a Cook, and Under-Cook, Women, Attendants, and Laundresses; for cleanliness does almost as much contribute to health, as the skill and medicaments of the Artists.

There ought also to be a conscientious careful Overseer of the whole Hospital, who must be very watchful that all employ'd in it, discharge sufficiently their Duties of their respective Functions; and who is to give the Governor constant notice of their several behaviours, that the diligent may be encouraged, and the remiss punish'd and remov'd, with new and fit ones chosen in their places.

For besides the just charity of such Care, who can expect the Soldiery shall frankly hazard themselves, if due provision be not made for the wounded and sick, so that it is as much the Interest, as the Duty of a Governor, to provide such an Hospital for his Garison; he must also take care in time of

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Plague,

Plague, or infectious Diseases, that the Soldiers have separate Places, and Accommodations and Assistances requisite.

A Town Major in a large Garison is very useful and necessary, for he is in effect the *second eyes* of the Governor ; he must see the Ports shut and open every night and morning, bringing the Keyes to the Governor every night, and receive them from him every morning, and not leave them on the Main Guard, as is the too usual custom. Before the opening of the Gates, he is to send thorow the Wicket some trusty Soldiers, with an Officer, to visit all places near the Ports where an Enemy may be conceal'd ; and after being fully satisfied there is none, then to open the Gates, and not before, since many Garisons have been surprized for want of this necessary Precaution.

The Town Major is also both day and night to visit the Guards and Centinels ; to be prying into all Companies and Places from whence Danger may probably arise, and to inform the Governor diligently of all that passes. He is likewise to mind the well quartering of the Soldiers when their Quarters are distributed by the Civil Magistrates ; to see the Guards be duly furnish'd with Fire and Candle ; and when any of the Soldiers are sick or wounded, to have them carried, to the Hospital or Pesthouse, for which end he must daily visit those places, and report to the Governor what he finds amiss ; for the Officers of those Houses will be the more careful, being under such strict and frequent inspection.

He is likewise to cause the Guard houses and Centry-houses to be kept clean, and in good Repair ; and where any breaches or decayes are in the Fortifications, or Outworks, to give the Governor timely notice, and to have them speedily and effectually repair'd.

He is also to see the Gibbets, and Wooden Horse, for the punishment of the Soldiers, erected and kept fit for the execution, when any by a Court Marshal are adjudged, and have a Guard on the place during the time of execution.

He must take most particular care where the Graft of the Fortification is a Mote, every great *Frost* to have the *Ice* well broken each night, the neglect whereof has lost many important Garisons.

One other indispensable Duty of his, is, to give the Governor constant and true notice of all strangers which come to the Garison by Land, or Water; what their qualities are, what their number is, and their Inns or private Houses where they lodge from time to time. For which end, both the Governor and chief Magistrate must under a strict penalty, require every Housekeeper every night, immediately after the Ports are lock'd, to send constantly to the Town Major, a particular Account of every stranger who lodges in the Garison, in whose Houses respectively they do it, with their Christian and Surnames, how long they intend to continue in the Garison, what Arms they Travel with; and if any number of persons arrive of whom a groundless suspicion may be entertained, then the Town Major is to appoint some persons whom he may fully trust, to insinuate themselves into their company if they can; at least to observe diligently their deportment, and who comes to them, and to whom they send; that by examining their carriage, and those they converse with, the Governor being duly informed by the Town Major, may act accordingly for the safety of the place.

In the best regulated Garisons where any arrive who are not thoroughly known to be Friends, if they Travel with Fire-arms, they are made to leave them at the Gate they enter at, receiving a Ticket for them from the Officer there, who is to re-deliver them, when the strangers go out of the Garison; or when they are well known, bring them to the Owners at the Inns where they lie.

A careful Governor ought not, unless upon very urgent occasions indeed, and having first secured himself against all probabilities of a surprize, to open his Gates after they are once shut, till the usual hour of opening them; but if any Packets come from the Prince, the General, or any superior Officers, or of important intelligence, he is to receive them by Cords, to which the Packet may be tyed, and for which end, a Post is to be planted at the outside of the Graft, to which a Cord is to be fastned, that reaches to the Gate, by which Cord, a Line being also at the end of the said Post, the Packet may be drawn into the Garison.

Over every Port of the Garison, there ought constantly to be a Centinel, and near him two Bells, the one much bigger

ger than the other ; on the larger Bell, he is from time to time to strike one stroke for every Horseman he shall see coming to that Gate, and on the lesser Bell one stroke for every man on Foot he sees coming to that Gate, whereby the Guard of that Port being advertised constantly of the numbers of Men on Horseback, or on Foot which are coming, may be the more in readiness according to the numbers that are arriving ; and may shut the Gates, if they be so numerous as to give suspicion.

In great and considerable Garisons which are ordered as they ought to be, I have seen on the Bridge which goes over the Graft, three Draw-Bridges, most have two, that when a Wagon or Cart comes, and hath passed the first Draw-Bridge, those who have the Guard of that Bridge, draw it up, and stop the Cart or Wagon, till they have thoroughly searched whether there be any Men, Arms, or Ammunition in it, and while that is doing, the Draw-Bridge next the Gate is drawn up ; but if only Merchandize be found in them, then they let them pass.

Two Rules are still to be observ'd in this particular.

The first is, That when several Carts come loaded to a Gate, the Guard admits but one at a time to pass upon the Bridge, or through the Gate, all the rest being to be stop'd on the outside of the Graft, till the first be searched, and have passed over the Bridge and through the Gate into the street ; then the rest are to pass, one by one, in like manner.

The second is, That whoever commands the Guard in the Gate of a Garison, must on no pretence whatever admit a Cart, or Wayn, or Passengers, to stop upon a Draw-Bridge, or in the Port, or under the Percullis of it ; for want of this care, *Amiens* was surpriz'd by *Porto-Carrero*, who had so well adjusted his design, that under the place where the Percullis was to fall, he stop'd his loaded Cart, and by an Artifice let the Horses go on which till then had drawn it ; whereby when the Percullis was let fall, the loaded Cart kept it supported on it self, by which means his Soldiers got in, having before sent some of them cloath'd like Peasants, who, as if it had been by accident, drop'd in the Guard-place a Bag of Nuts and Apples, which while the Soldiers of it were scamb-

scrambling for, *Porto Carrera's* disguis'd men kill'd them at their pleasure, and being suddenly and briskly seconded by his Horse and Foot, which lay ready for that end, *Amiens* was surpriz'd, and cost King *Henry the Fourth of France*, justly surnamed *the Great*, much time, treasure and blood, to recover it again.

The like care also must be taken in the thorough examining and searching all Ships and Vessels which come within the walls of Garisons; for want of that care, *Breda* was surpriz'd in our memories.

I think it very advisable on the flanks of every Bastion, to have the Cannon of it, which is next the Curtain, still loaden with Chain-shot, and so pointed, as when it is fired, the Chain-shot may cut off all the Ladders, which on an intended surpris'd by Scallado, may be fastned with iron Crooks to the top of the Parroquet of the Curtain.

The City of *Geneva* was once preserved by this Caution, for it will be too late, to point Cannon justly in the night, when the Enemies Ladders are once placed; therefore I would have it done before there be need, and that will be useful when there is.

Wherever Ordnance are planted in a Garison, there must still be a Centinel upon every piece, whose duty is to let none, except the Officers of the Garison, and the Ordnance, to come so near it, as to touch it; For want of this care, Cannons have been often spiked and clogged, and Garisons thereby have been surprized; nay, I have known, by the pouring in of a certain corroding Liquor, either at the Touch-hole, or at the Muzzle of the Cannon, if her Britch be sunk; a Cannon so eaten into, that when she came to be fired, she split, and kill'd some of those whom she should have defended against the Enemy.

I learnt how to make this corroding Liquor from an expert Artist, but esteem it unfit to make the Receipt of it publick.

I have seen in some Garisons, Plates of Iron fastned with Padlocks, both to cover the Muzzles and Touch-holes of Cannons, which possibly were to preserve their Ordnance from the effects of that devouring water.

Those who have the charge of the Ordnance of a Garison,

son, ought often with their Worm, to draw out the Loading of a Cannon, both to put in new if the Powder in the Cartridge be wet, or if the shot or bags of Bullets be stolen out; for if any intend you foul Play, though they steal out the Loading of the Ordnance, yet they will fill the bottom of the Cilinder of it, with something that shall be to the height of the Loading; and therefore the trial by the Rammer only, may be fallacious; but by drawing out the Charge, you cannot be deceived; I knew a Garison surprized by such an Art of the Enemy, and such a Negligence of our own.

In great Garisons I have seen Guards kept constantly from the opening to the shutting of the Gates, at the further end of the Bridge over the Graft, which is much the safest way, if the Garison be numerous enough to admit of it; for this Out-Guard examined all Comers and Goers, before they came to that Bridge, whereby much of the danger of a Surprisal was avoided.

The having double Vaulted Arsenals, especially for preserving the Powder against accidental or design'd Fires, or the execution by the shells of Mortar-pieces, are very requisite; and if possibly, to have Mills for making Gunpowder within the Garison; since nothing better does keep an Enemy far off, than freely shooting against him; and the best furnish'd Arsenals will be too soon exhausted, if all be spent constantly upon the main stock, and that be not recruited from within.

These being some of the most essential things for the *Well-ordering of Garisons*, I shall defer the enumerating of the rest, till I come to that Chapter which treats of Sieges.

The Marching of an Army.

IN the Marching of an Army, there are many important Particulars worthy to be thoroughly known, and diligently observed :

Whether I marched in a Friends, or Enemies Countrey ; Whether I believed the Enemy near, or far off, I would still observe the like order, and have the same care ; for a General may be mistaken in his Intelligence, or Intelligencers ; nay, may think those are Friends, which want but an advantageous opportunity to declare themselves Foes ; and therefore all imaginable caution ought to be observed in all times and places, because War is a Profession of so ticklish a Nature, that 'tis rare for any chief Commander to be capable of erring twice in any essentials, and therefore he ought to be the more vigilant not to do it once. But were there nothing else as a Motive to it, but the keeping up exactly the Military Discipline, yet for that Reason singly, I would constantly do it.

These following Particulars I would therefore recommend to consideration and practice, having my self constantly, since I knew any thing of the Profession, punctually observed them, and found the good of doing it.

All the Regiments should in course take their turns, to be in the Van, Rear, and other parts of the Body of the Army ; For where there is equality of Duty, there must be also universal satisfaction therein ; the Generals Regiment the first day are still to have the Van of all, so daily every Regiment to have its turn according to its Priority, being a General Officers ; or Antiquity, being a Colonels.

The Regiments of Horse and Foot that are at Night to have the Guard of the Camp, or Quarter, is still allowed to have the Van.

First, Since they are to have the Duty at Night, they ought to have the place of greatest ease in the dayes march, which doubtless the Van is.

Secondly,

Secondly, Being to watch at Night, they ought to be the earliest on the ground where the Army is to Camp, or Quarter, the better to view it, and for the placing of their *Centinels*, and Guards; and for the chief Officer to order where his *Patrouils* and Parties which scowre the Countrey, may most usefully move for the safety of the whole.

Thirdly, Such of the Van as are not employed in those Functions, having first of all (which must be still indispensibly done) set out their Out-Centinels in those places from whence they may clearliest and farthest discover their several Guards, (for these are the eyes as it were of the Camp) are to draw up into Squadrons and Battalions ready to fight, if need require it, till the whole Army be encamped or quartered; and upon no consideration whatever, to exempt the Regiments of the Van, Horse and Foot, from that Duty; since the hopesullest time for an Enemy to fall into a Camp, especially not entrenched, (as ours alas seldom, or rather indeed never are) is just as the Camp is beginning to settle; For men then are commonly weary, or busied in pitching their Tents, or making their Hutts if they have not Tents, or in getting Fuel, dressing their Meat, providing of Forage, looking after their Baggage, and a hundred other little, but necessary employments to the Oeconomy of Soldiers; and therefore this nick of time being busily employed by all who have not the Guard, those who have it, must be in their turns the more vigilant for all the rest.

Fourthly, Those who have the Van, ought to be the earliest on the ground to Camp or Quarter in, because if there be any Woods, Mountains, or other covert places, at any reasonable distance from the ground to Camp in, they ought to have those places thoroughly searched ere it be dark, for then it may be too late to do it; I have known sad Defeats given to Forces for want of these essential Circumspensions.

I will not trouble the Reader with many other Reasons for it, since it is a thing made evident enough by what has been already said, if it be not so of it self.

If it be possible, I would every morning before the Army marches, draw it up in Battalia; if that will take up too much time, or the ground permits it not, I would draw up as
much

much of the Army as I could into gross Bodies, or rather that fail into many lesser, as the place and time would allow me, the more to accustom the Soldiers to march in Body, and also to be the more ready to resist an Enemy should he attempt me; for the best opportunity of doing it next to that of an Armies lodging, is to do it as it dislodges.

Out of the Van Regiments of Horse and Foot, I would still draw out a Forlorn Hope of Horse and Foot, who under careful Officers should march a good distance before the Van, and should carefully search, and discover all covert places, fit to conceal an Enemy, whether right forward, or on either Flank, and send speedy notice of what they discover to the General, and other general Officers, that they may give timely orders thereon.

It is in my own poor opinion very fit a new Word should be given to all the Commissioned, and Non-Commissioned Officers, and a Field mark to the private Soldiers, every morning just as the Army is ready to march; for if there be no need of both, it does no harm; if there be, it does much good, especially if an Army, or any part of it, be suddenly attacked during its march; for on such sudden occasions, it may be too late to do either; and then the Field Word being given to all the Commissioned and Non-Commissioned Officers, it may by them, in an instant, if there be occasion, be communicated to the private Soldiers.

I know it is usual, that the Regiments of Horse and Foot which are to have the Guard at Night, have the Van of the Horse, and of the Foot, during the dayes march. But I offer it to consideration, whether that practice may not with Reason be altered; I have sometimes done it, and found good effects by it. For I have made the Horse and Foot which were to have the Guard the succeeding Night, lead the Van of the Army all the dayes march, and not as is the usual custom, given those Horse which were to have the Guard at Night, the Van of the Horse; and those Foot which were to have the Guard with them, the Van of the Foot; but made both the Horse and Foot which were to have the Guard, march in one Body in the Van of all the rest of the Army; for I could not see any one inconvenience by it, but I found it had many advantages, especially if the Army were nume-

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rous, or the Countrey through which we marched was inclosed, or full of Passes; since if the Army were great, and the wayes narrow, or full of bad steps, it would usually take up two miles distance from the Van of the Horse, to the Van of the Foot, whereby if the Regiment or Regiments of Foot which were to have the Guard at Night, marched but in the Van of the Foot, they would be long ere they came to the ground where they were that Night to do the Duty; and consequently, might probably fail of those advantages, which by early coming they would have had.

In the next place, if the Countrey have narrow wayes, or many Passes, all the Horse which march in the Van of the Army, if assaulted by the Enemies Foot, might be too much exposed, while the Foot are coming up from the Van of the Foot, to relieve them; whereas if the Regiments of Horse and Foot which are to have the Guard, march together in the Van of all, the Foot are as it were at hand, to shelter the Horse of the Van.

Lastly, there may be some Bridge, Cause-wayes, or Passes to be secured, for the better marching of the Army, which possibly the Enemy when he finds which way you move, may attempt to seize upon; and though your Horse should get thither before them, yet if you have not Foot or Dragoons to justifie it, the Enemy will quickly beat you from it, especially if he has Ordnance.

Probably also your march may lie thorow Woods, or Copfes, or Moorish Grounds, where the Van of the Horse may suffer much, unless the Foot be with them; and because the Horse are useless in Woods, Copfes, and deep Moorish Grounds, if your Enemy understands his work, he will in such places fall on your Horse with his Foot, and do it with safety to his Men, and certainty of success, unless you have Foot ready to hold his Foot play, till the rest of the Army comes up.

When ever I marched with Horse and Foot thorough Woods, Copfes, or deep Moorish Grounds, I still sent our wings of shot to the right and left hand, above a Musket shot from the Road, in which I marched my Horse, the better to shelter them.

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These are some of the many advantages which follow from having the Horse and Foot which are to be on the Guard at night, to march all the day in a Body in the Van of all; but as to the inconveniences of doing it, I leave it to those to set them down, who have found, or shall find them out, for I am therein to seek.

The having of many good *Guides*, and to distribute them well, and on their informations diligently compared, to resolve on the way to march, are very requisite things, especially if you march to attack an Enemy in the night; I say, many good *Guides*, and well distributed; for want of both which, I have known some great designs not only fail, but those who were to attempt them, run great hazard, and suffer the loss of many Men: For if you have but one Guide, or two Guides at most, that are taken up in the Countrey, they may be corrupted, or give you the slip, unless you be very careful; and if they be the first, or do the last, not only you lose your design, but may also lose your selves; therefore I would always if I could, never have less than three Guides, one with the Forlorn, one in the Van of the Army, and one with the General, who may have many things to ask him, and to be informed of by him, during the march, which it might well be impossible for him to have inquired into, till he saw the Countrey through which he marches; but if you have but two Guides, or but one, and that you are not on certain grounds secure of his, or their honesty, you must be more careful to keep him safe, lest if he or they should escape, the prejudice and danger be great.

I earnestly recommend the ordering the daily marches of any Army, in such manner, as alwayes to come early to the place you will Camp, or Quarter in; but in a most especial manner indeed, if the Enemy be near you, or that you march in a Countrey that belongs to the Enemy, or is better inclined to him than to you, or is at best, a doubtful Countrey; for so many mischiefs and inconveniences have hapned, and may happen thereby, that nothing but down-right and meer necessity, should ever make me do otherwise. I shall enumerate a few, that by the Pattern one may judge of the Piece. Your Horse generally are by late coming to Quarters, unprovided of Forage, and one dayes march with the
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succeeding nights Fasting and Duty, does cast them down, more than six dayes ease, and good Feeding, will raise them again. If they ramble out of the Camp to seek it, 'tis ten to one, it being in the dark, they fail of it; and if any Enemy be near, twenty to one he fails not to cut them off. Your Men generally will want firing, both for the dressing of their meat, and for the Guards; the hindmost and straglers having no Guides, usually lose their way; and if the Countrey be false, or the Enemy near, themselves also. The confusion will be great in every Regiments finding, and taking down his Baggage in the night; but if you have not Tents, and must Hutt, or lie open, 'tis more than odds, you do the latter. The danger of overthrowing the Cannon or Wagons in the dark, which may also happen in such places, as it may stop the whole march of that part of the Army which is hindermost, as I have known it sometimes do, and thereby expose both the Van and the Rear to be cut off, by being divided, and in the dark. Lastly, not any longer to attempt to make that evident, which is in it self but too plain; if, when you are incamped, or quartered, and are in the night assaulted by your Enemy on all parts, though having well viewed the ground, and disposed of your men in case of a real Attack, it be difficult and uneasy enough to make a fitting defence; judge what it must be, when to the brisk Attack on all sides from an Enemy without, is added, the confusion and disorder within the Camp. And if your Enemy understands his business, he will never fail of making his attempt that night in which you come late, and consequently tired and disordered, into your Camp, especially when it has no Line about it.

To prevent therefore this fatal mischief of coming late to Quarter, I would practise three things indispenfibly.

The first is, to be moving very early.

The second is, to send the Carpenters of the Train, and most of the Pioneers with the Van, to mend Bridges that need it; to support and prop such, as without those helps shall be judged insufficient to bear the Wagons, Ammunition, and Cannon. And when there are any bad steps for the Horse, or Train, to mend them against the Army comes up. And when the wayes are narrow, to leave those wayes, if

if it be possible, only for the Cannon and Baggage, and to make several large gaps to the right and left hand of the Highwayes, for the Troops to march in the Fields.

Thirdly, whenever the ground allows it, to march in Battalia ; and if all the Army cannot, yet at least that the Horse and Foot march in as large Squadrons and Battalions as the Countrey will admit ; which will not only hasten your march by shortning the length of your Army, but also habituate your Soldiers to march orderly in Bodies, against there is need. Yet if all these Precautions do not accelerate your intended dayes march, as that you apparently see you cannot come early enough to your intended place to Camp or Quarter in, (for many such Accidents may happen) then I would much rather Camp short of the station I intended, in the first convenient Ground I found, for Fire, Water, and Fo age, (which three must still be minded) than expose my Men to all the fatal mischiefs and inconveniences of a late Incamping, or Quartering.

If I am to Camp or Quarter at night in an Enemies Countrey, or a doubtful one, or that an Enemy be near, I would strictly observe these two following particulars.

First, That none should know the Ground I intend to Camp, or Quarter in at night, but the chief Officers.

Secondly, That if my Guide or Guides be not of my Army, or Men thorowly known to me, and trusted by me ; I would let him or them, speak with none, after I concluded they might guess at the way I intended to march ; and consequently near what place I intended to Camp, or Quarter in, and to have them in safe custody all the march.

I would allow no Soldiers, during the march, to straggle, much less to stay behind, unless on meer necessity, and by his Officers leave ; and this I would firmly observe, whether I marched through a Friend, or Enemies Countrey, not only to keep up that excellent part of Military Discipline, but also to preserve my Men from receiving or doing the Country any harm ; since Soldiers but too generally are apt to do amiss, when they have the power to do it, especially if not under the eye of their Officers. And I have known Countries which being ill us'd by the Soldiers of their own Party, but well by those of the Enemy, have therefore been Friends to

their Foes, and Enemies to their Friends, who in effect made themselves their Enemies, for the People of the Countrey judge chiefly by their senses.

As the Van has a Forlorn of Horse and Foot, so the Rear should have a Rear-guard of Horse and Foot, to be composed out of such as were the precedent night on duty, and I would still send out small Parties of Horse on the wings to discover: By this method the Van, Rear, and Flanks, cannot be attacked, without having timely notice to put themselves into order to resist an Enemy.

As to the Baggage, I know 'tis too usually practised for the convenience of the Regiments, to have the Baggage of every Regiment, march in the Rear of the Regiment, which I think very unfit, especially if an Army marches in an enclosed Countrey, or where there are Woods, Copse, Moorish Grounds, Rivers, Bridges, or Passes; since the Baggage so placed, must hinder the Regiments from coming up expeditious to oppose the Enemy, and second such as may be assaulted in the Van, or Rear, whereby the ruine of the Army may probably ensue.

Julius Cæsar when he marched, especially in an Enemies Countrey that was enclosed, or cumberfom to move in, by reason of Woods, Copse, Bridges, &c. made all his Legions march in a Body, and in the Rear of them disposed of his Baggage, leaving only for their Guard some new raised Men.

This did well, where he was sure the Enemy could only attempt him in the Van, but not knowing where he will make his impression; yet being certain he is likeliest to make it, where he will find least resistance, and where he may do most mischief, in my opinion 'tis best to have the Baggage, as also the Cannon, and Ammunition, march in the Centre of the Foot, where they are likeliest to be safe from all attempts; and if the Attack be in the Van, or Rear, or both, half the Army will be free from the incumbrances of the Carriages, and will be ready to make head where the need requires.

The *Romans* were so exact in the order of their marches, as that every Morning at the first sounding of the Trumpet, every one took down his Tent, and began to make up his Bag-

Baggage; at the second sounding, every one loaded his Baggage; and at the third sounding, the Legions moved out of their Quarters, and put themselves in the form and order they were that day to march in: But none were to take down their Tents, till the Consul and Military Tribunes had first took down theirs; whether for the greater respect, or because their Tents and Baggage being larger than the rest, they should be the first at work, and thereby have their Baggage as ready to march at the third sound of the Trumpet, as the private Soldiers: For Commanders who give Rules to all the rest, ought to be the most exact themselves in observing them; since if they break their own orders, they encourage others to lose their reverence to them; and Example operates more than Precepts; for most men see better than they understand; as when among Clergymen, vicious Livers, are good Preachers, many think they themselves do not believe what they seem to inculcate, since they practise contrary to what they teach.

Therefore it seems to me exceeding requisite, that whatever Rules are made in an Army by a General, he, and his servants, ought most punctually to observe them; for else with what justice can he punish in another for the breach of the same orders which he himself does violate? But when the Soldiery finds the General keeps strictly the Rules he gives, they do the more inviolably observe them also; for they conclude, since he will not therein indulge to himself, he will not do it to others. And they implicitly believe such orders are good and necessary, because he that gave, is so punctual an observer of them.

In imitation of the *Roman* Discipline when the Army or Forces were to march, I observed these following Rules, where I had the Honour to command in Chief. Soon after the Reveill was beaten, I caused all the Troopers and Wagoners, or Men that tended the Baggage, to take up their Horses and Oxen, and to make ready to load. At the sounding to saddle, all began to take down their Tents, and to load. At the sounding to Horse, all the Troopers did mount, and the Foot Soldiers draw into Arms under their Colours. When the Trumpets sounded to the Standard, all the Soldiery marched out of the Ground they Quartered, or Camped on, into the
Field

Field or Fields appointed to draw up in, and there were formed into as many and large Squadrons and Battalions as the time and ground would admit, still those Forces of Horse and Foot having the Right which were to have the Van all day, and the Guard at night, all the Ordnance, Wagons and Baggage being drawn up on one side by themselves, ready to fall into the centre of the Foot, as the Army or Forces marched off. Those which had had the Guard the preceding night being drawn up in Battalia, till the Army fell into their marching order, and till the Ground was cleared; and then they brought up the Rear all that day, and commanded out a Rear-guard of Horse and Foot during that dayes march, who were still to bring up all sick or lame Soldiers who could not keep pace with the Body. And where any was unable to go, to carry him behind a Trooper till he came to the Camp, and then to deliver him to his Captain; also to seize upon and secure all straglers, and to give them to the Provost Marshal, that they might be punish'd.

If I march'd through a Countrey which had narrow Cause-ways, Bridges, Rivers or Passes, I made those Forces which were on those Cause-ways, Bridges, and Passes, double the quickness of their march, till they were gotten out, or over them; and then immediately draw up on the right or left hand, as the Ground would permit, till all the rest were got over, in case I suspected the Enemy was near, or watched my motion.

If I did not apprehend an Enemy, then I made only every Regiment of Horse and Foot draw up when they had passed over those straights, till the intire Regiment were got over, and then to continue their march; the like I practised over any fordable Rivers. But still when the stream was rapid, or above knee-deep, I made the strongest Horse, by turns, in Files stand firm in the River on the upper and lower sides of the Ford, that the Foot might pass the safest between them, the upper Files breaking much the rapidness of the stream; and the lower catching up those Foot Soldiers who might be cast down by the violence of the Current, by which means many Foot Soldiers Lives have been saved.

I did also order the Horse in the Van of all, when they had gotten over the Ford, to send out small Parties to discover,

cover, while the rest of the Army were marching over the Fords, or Bridges ; and if the Countrey were enclosed, or hilly, to be the more diligent and expeditious in such searchings and discovery : For an Enemy cannot wish for a greater advantage, than to fall upon an Army which is separated by a Ford, Bridge, or such narrow passage, since then they are his at a cheap price, therefore great and constant circumspection must be observed in all such cases, and all the Forces, as fast as they get over, must be in a posture to fight, in formed Squadrons and Battalions, while the rest are getting over.

It ought also to be the constant care in a chief Commander, especially marching through an Enemies Countrey, or when an Enemy is near, often to make short halts, that the Army may not march disorderly, and that it may be as short in its long march as possible ; for 'tis better to make short and sure dayes marches, than long ones and hazardous.

'Tis impossible to give one certain and standing Rule, for the most advantageous and safe way of marching an Army ; for the form must vary according to the Country you march in, and the Enemy you have to do with. If I suspect he means to assault me during my march in my Front, Rear or Flanks, I must fortifie those several parts accordingly. If he be an Enemy not strong enough to give me Battel, and will only by his Horse and Dragoons possess the Passes and Bridges, and Fords, to obstruct and retard my march, I would then have some Ordnance, with their Necessaries, march with the Foot which are in the Van of all, the better and sooner to drive him from his Defences ; and I would march my Army in two or three several Bodies divers wayes, which the *French* call *Columes*, but we, and I think more properly, *Lines* ; yet still no farther distant the one from the other, than to be ready speedily to unite, if the need require ; and at evening, all to Camp in one Field, or quarter it conveniently, whereby the whole would move the more expeditiously, safely, and at ease ; and the Enemy would be the less encouraged to defend a Bridge, Ford, or narrow Pass, against one of the three Lines ; since while he is doing that, one, or both the others, may encompass him, and cut off his retreat.

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There are several other Cases which must be provided against, as the emergencies happen, by the care, knowledge, and foresight of the Commander in chief; for which no positive Rules can be set down, but the Orders must be given on the place, and proportionably to the Ground, the Enemy, and the Occasion.

In an Enemies or doubtful Countrey especially, I would still have a general Officer, with the Quartermaster general attended upon by the Quartermasters of the respective Regiments of Foot, and Troops of Horse, and Train to be on the ground to Camp on at night, some convenient space of time before the Van of the Army comes up, both to view the Ground thorowly, to take all the advantages of it, and to appoint the several places for the Guards, for the general Officers, the Regiments, and Train to incamp in; that against the Army comes up, every one may know where to pitch his Tent: for which end, the several Quartermasters should near the first Avenue of the Camp, attend, and be ready to shew their men respectively as they come up, where the Ground is, and how much is allowed them to lodge in; that all may go readily, and without confusion, to their several stations; and that there may be no dispute, those should be staked or marked out, else too often quarrels or animosities do arise on those occasions.

And if an Enemy be near, I would have the several Regiments draw up within the Camp, or near it, till the Rear be ready to enter into it, to be the fitter to resist if assaulted, or to relieve the Rear if fallen upon; and only admit some of every Regiment to employ themselves in pitching the Tents of the rest, and the other requisite actions, whereby all may be in a forwardness to lodge, when safely they may do it.

The *Roman* Discipline in this particular was thus: When their Army approached near the place where they were to encamp, the Tribunes and Centurions appointed for that work, advanced before all the rest, diligently to view and consider the situation of the place; and having chosen the Ground, in the first place the Consuls or Generals quarter of the Camp was marked with a white Flag or Streamer, and the Boundaries of it were at the same time set out. Then the several quarters of the Tribunes were also appointed, and then

then those of the several Legions, all with distinct Flags or Streamers of several Colours, only the Tribunes were red. Then every Legion as well of the Allies, as of the *Romans*, had their portion of Ground assigned and mark'd out for drawing the Line about the Camp, which was forthwith done, many hands making light work; and all were expert in it, by constant practice: for they never alter'd the measures, nor the form of their Camps, being never allow'd to Camp in the Fields, but in Camps intrench'd, though it were but for one nights quarter, so safe and excellent was their Military Discipline, which, in my humble opinion, the closer we keep our selves unto, in most things, the greater advantage and security we shall thereby enjoy.

I shall close up this Section, by only adding to it, That an Army but of 10000 Foot, though they march 10 in a Rank; and of 1000 Horse, though they march 5 in a Rank, having as slender Baggage as Men can march with, and having but a Train of 10 Cannon, with an Equipage to them for shooting but a hundred shot round, takes up in their long march, near 28000 foot in length, which is five measured Miles, and three fifths of a Mile; so that so small an Army taking up in length near half a dayes march, you thereby see how exceeding necessary it is for an Army that is to march, to be moving early, and to march as often as they can in Battalia, or in great formed Squadrons and Battalions, and in three Lines, or two, if possible, to shorten the length of your Army, and to draw up often as soon, as they are got over Causewayes, Fords, Bridges, Rivers, &c. lest if attaqued during their march, the Enemy cut them off by parts, the distance from Van to Rear being so great, though your Army be so small.

Lastly, If you make long marches, especially in enclosed Countries, or full of Passes, judge how probable 'tis, if you have a knowing active Enemy, that you may be defeated, unless you be very vigilant, and have constantly small Parties abroad to discover at a good distance, and to give timely notice, that accordingly you may be ready to oppose him; and therefore to march in several Lines by several wayes, yet still, as I said before, near enough to join, or relieve one another, seems very requisite; as also where there is but one way over
narrow

narrow Passes, if possible, by your Train Carpenters , and Pioneers, to make more.

I mention nothing how to defend your selves, if attacked, in a Pass, or narrow, or moorish wayes, though much, and many things may be said on that Subject; because I take it to be the duty of a good Commander, to avoid by his foresight and care, the possibility of being engaged in so great a difficulty; for if it be run into, 'tis hard, if possible, well to extricate ones self out of it; and were all that which has been experimented in those fatal cases, set down, yet still the remedy will chiefly depend on the quality of the place, and of the Enemy you have to deal with, and on that essential part of a chief Commander, which is called, *Presence of Mind*, which must actuate him according to the ground, the Enemy possesses, or he himself is so unhappily engaged in. Only this in general is undoubtedly true, in such an affair, that quickness and courage in designing and acting, are essential; but still the best way is not to fall into such Traps, which are easilier avoided, than got out of, when you are in.

H O W

*Of Camping an Army within a Line
or Intrenchment.*

T Here are three sorts of Camps,
The *Temporary Camp*, which is for a Night, or some short space.

The *Standing Camp*, whereby Countries are kept in subjection, which have been Conquer'd, or in which Armies are lodged for some time, either to avoid being necessitated to Fight, till they saw a fitting time, or for some other great design.

And the *Besieging Camp*,

Of which latter I intend to discourse in that *Chapter* which concerns Sieges, it seeming to be best reserved till then. And now only to speak of such a Camp with a Line or Intrenchment about it, as is of extent and capacity sufficient to lodge an Army within it, both for the accommodation of your own Soldiers, and resisting the Enemy, if he assaults you.

The *Camping of an Army within a Line or Intrenchment*, is attended with so many solid Advantages, and the neglect of it accompanied with so many Dangers and Inconveniences, that by as much as the *Roman Discipline*, which constantly obliged their Armies to lodge tho' but for one Night in intrenched Camps, is to be praised; by so much the neglect of it ought to be avoided: I shall enumerate some of the most material Benefits, which are inseparable from the doing it; in which, by the Rule of Contraries, the Mischiefs of omitting it, may be the clearer and more convincingly infer'd.

First, Such an Intrenchment of an Army keeps it safe, and frees it from those Dangers which it is alwayes exposed unto, by Quartering in open Towns and Villages, where if your Enemy be awake, he will every Night endanger the carrying or beating up of some quarter of it, which by its being lodged in a Body, and within a Line, it is exempted from, since to assault an Army so Retrenched, is so daring

an Act, and so dangerous, that we hear of few who undertake it, and of much fewer who are successful in it.

Secondly, It eases the Army from keeping many and great Guards, since a few serves the turn for All, when all are at hand, in case of the Enemies attempt; whereas if they are Quartered, Dispersed in Villages, and without a Line, every Quarter must do almost as great, and as hard Duty for its own security, as if the Army were well encamped would suffice for the whole. But above all, it eases and secures the Cavalry, which if Quartered in open places, must be mounted the most part of every Night.

Thirdly, Your Army is better than within a strong Town; for there you are mingled with Inhabitants, (some of which are too likely to be Spies for your Enemy) but usually are Corrupters of that excellent Discipline of which Sobriety is a chief Ingredient; both which great Evils are not only avoided in Camps, but from them also you may go secretly, and with what numbers of Soldiers you please, on all great designs, and leave your Train, Baggage, and Sickmen, &c. secure, during your absence.

Fourthly, In an Intrenched Camp, none can compel you to Fight but when you please, and Woe be to that Army which by an Enemy is made to Fight against its Will.

Lastly, (to omit many other material Advantages) an Intrenched Camp, by reason of the open Air, the healthiness of its situation, which alwayes must be minded, and the cleanness which may, and ought to be kept in it, is exceedingly less subject to Infection and Sickness, than Villages are, insomuch that some great Captains have concluded, an Army will be likelier preserved, and kept sound and untainted three months in a well seated and regulated Camp, than three weeks in the ordinary Villages and Countrey Towns.

All which seems to prove, that one of the most necessary and beneficial parts of the Military Art, is to know how to Incamp well, and constantly to practice it. Nor could I ever hear of any Objection against it, which did not relish chiefly of Laziness; for such as disuse it, take for their pretence, the over-harassing of the Soldiers, and consequently often casting them thereby into sicknesses; when, on the con-

contrary, Idleness does oftner produce the last, and the former, by practice, will soon be overcome ; for no mens bodies are usually so sound, and continue long so, as the daily Labourers.

For as to the charge of buying Pickaxes, Shovels, Spades, and Wheelbarrows, &c. and the Horses, or Oxen, Carts, or Wagons to carry them in, it is insignificant if weighed with the real advantages an Army derives from the good employing of them ; and as to the Labour, it ought to be without wages, since none do it, but those who find their own safety, and ease of Duty by it ; And since we make the Soldiers carry their Arms for their Defence, and their Knapfacks for their Food, which all do willingly, because 'tis rational, and they are accustomed to it ; so it being as reasonable that men should sleep safe, and keep fewer and less Guards with security ; if what conduced thereunto were made habitual to them, they would as contentedly undergo it. If one should say that the *Roman* private Soldiers were better than ours are, and fitter for War, we should take it as an Affront ; and yet 'tis evident, that in this laborious, and advantageous part of War, they excell'd us ; we should either not deny it by our words, or contradict it by our actions. At least if we would do no more, I could wish we did but so much, as when ever we Camp, though but for a night, we would at the Angles of those great Inclosures we lodge in, raise little Bastions, or Flankers of Earth, and Sod ; And where the sides of such Inclosures were longer than a Musket would carry point blank, make little Ravelins or Redoubts to clear them, it would be a great safety to the Camp, and would ease the Duty of the Guards, who would not need to be so many, or so strong ; And if you came to Camp in an open place, only but raise little Bastions, or small Redoubts round the Ground you Camp on in a Musquet shot the one from the other ; And instead of a Line, draw Carts, Wagons, and Carriages between the several Redoubts, (leaving Avenues) which is done in a little time, and with much ease ; for those Redoubts need not be above Parapet-high, and the Grafts of them no broader nor deeper than the Earth rais'd out of them will suffice to fill between your Sod-work, which faces and lines the Redoubts ; nor need they

they be larger within, than will serve to contain 60 men apiece; but if you Incamp for some time, 'twill be worth the pains of making a Graft, and a Line, and enlarging and heightning your Flankers.

These little Labours would be exceeding useful and safe, and would so accustom the Soldiers to work for their own safety and ease, that in time of necessity, they would be the fitter and abler to undergo, and answer it.

I do not find that the *Greeks* ever tyed themselves to make the Line about their Camps equal or regular, but drew them according to the benefit and advantages of the ground. The *Romans* seldom or never varied the form and figure of their Camp, but alwayes made their Rampards higher, and the Graft broader, and deeper, according to the apprehension they had of the Enemy.

I think it is not amiss here to set down the form of a *Roman* Camp, for there are many particulars in it worthy the imitation, and some things which our late Experience has with much Reason alter'd, and amended.

The Line and Rampard, which consisted of four equal sides, was equally distributed to be raised by the two *Roman* Legions, and to the two Legions of their Allies, who without intermission perfected it, which was their first work; and 'tis probable when they Camped but for one Night in a place, and fear'd not to be Attacked, they made the Line but low, and the Graft but broad and deep enough to fill Earth enough between the facing and lining of it; I observe they did not use Sods commonly, if at all, for those Works; but they drove double Rows of Stakes of a sufficient thickness and length into the Earth, leaving so much of the length above ground, as the height of their Work was to be of; then wattled them like our Hurdles, and raised them by degrees, as they fill'd them with the Earth rising out of the Graft. This way was expeditious enough if they Incamped still in places, where they were certain to find those Materials; And where they wanted them, I suppose they made use of Sods to face and line their Rampards with, as the Moderns do: But their way of Staking and Wattling, having many Iron Crows, or other like Tools to make Holes for their Stakes, (if the Materials were

were ready) was more quick than ours; for our way requires much time both to pare the Sods, and to ram the earth and the tayles of the Sods, sufficiently; and without both, the Work is very apt to belly, and then to slide, which also it will very often do, if the earth have not time to settle, and that cannot be allowed when Men come to the place of Camping but for one Night; whereas when the Rampard is faced and lined with strong Stakes, and good Wattles, the Work cannot slide, till either the Stakes, or Wattles rott, and that they will not do in many months; neither is there need, to ram the earth, for it being firmly shut up, on both sides, it will settle of it self, without endangering the sliding of the Rampard; and 'tis in this manner that we do in sandy and gravelly Grounds, secure our Lines of Circumvallations, which proves it is firmer than Sod work can be.

Between the inside of the Rampard, and the outside of the outwardmost Tents, there was an open place or street of 200 feet in breadth, which was continued all along the four equal sides of the Camp, and this was the place to draw up the Soldiers in, who were to defend the Line, and for their Cavalry to scour it, which in my poor opinion was too narrow to answer both services; and if it were only to draw up the Foot in, they lost the benefit of their Horse, which experience has taught us, in such occasions, is of singular use; for whatever Foot scale, or storm a Line, must enter it in great confusion and disorder, and can very hardly indeed resist small Squadrons of Horse, who are ready to receive them, and charge them all along the inside of the Line.

The four Orders of their Infantry, the *Velites*, the *Hastati*, the *Principes*, and the *Triarii*, under the names only of the three latter, (for they divided and mingled the *Velites* among them) were thus ordered, ten *Cohorts* of the *Hastati*, which at sixscore in a *Cohort* made 1200 Men, had 480 *Velites* join'd with them, and made one Body of 1680 Men.

The like number of *Velites* were joined to ten *Cohorts*, of the *Principes*.

But in regard the *Cohorts* of the *Triarii* consisted but of

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sixty

sixty Men each ; ten *Cohorts* of those made but 600 Men, and therefore the *Velites* join'd to them were but 240, both which made a Body but of 840 Men.

The *Romans* allowed ten Foot of Ground square, to lodge two Foot Soldiers with their necessities, so that 100 Foot in breadth, and 1000 in length, was sufficient to lodge 2000 Foot Soldiers, whereby ten *Cohorts* of the *Hastati*, when the *Velites* were joined to them, (which made but 1680 Men in all) were lodg'd at large in that compass, and had enough to spare for their Baggage.

The like quantity of Ground served to lodge ten *Cohorts*, of *Principes* when their *Velites* were joined to them.

But only half as much Ground was allow'd to ten *Cohorts* of the *Triarii*, and to the *Velites* joined to them, because they were half less in number.

To the Cavalry, they allow'd for every 30 Horse 100 feet of Ground square, and for 100 *Turmae* 100 Foot in breadth, and 1000 Foot in length.

To the Allies they allowed the like proportion of Ground to Camp in, which they allow'd to the *Roman* Legions.

But because the Consul had alwayes a fifth part of the Foot of the Legions of the Allies, and one third part of their Horse for his Guard, they lessen'd the allowance of Ground where the Allies Incamped, and added as much elsewhere in the place where the Guards were Quarter'd.

The Lodgment of the Cavalry, and Infantry only, was separated by five streets, every one of 50 Foot in breadth, at 1050 in length ; which streets were divided by a cross street in the midst, which they called *Quintania*.

At the head of this Lodgment of the Cavalry and Infantry, there was a large street of 100 Foot in breadth, which went quite cross the whole Camp, beyond which street was the Lodgment of the 12 *Tribunes*, opposite to the two *Roman* Legions ; but opposite to the two Legions of the Allies, was the Lodgment of their 12 *Prefects*, but the Lodgment of the 12 *Tribunes* was in the middle, and those of the 12 *Prefects* of the Allies, were on the right and left hand of the *Tribunes*.
To

To every one of these 24 Lodgments, was allow'd 50 Foot of Ground square, which with the Intervals between each Lodgment, took up the breadth of the whole Camp to the street of 200 Foot wide, which went round next the Inside the Line of the Camp.

Beyond the Tents of the *Tribunes* and *Prefects*, was another street of about 50 Foot broad, and beyond it was the Consuls Lodgment, which had allow'd for it 200 Foot square, and was call'd the *Pretorian*; which was still in the midst of that Line, and had on the right and left hand two great spaces of Ground; the one for the *Questor*, who was the Treasurer; the other for the Market, on all sides whereof, but on that side where the *Tribunes* and *Prefects* lodged, were the Lodgments of the 400 Horse, and the 1630 Foot which the Consuls drew out of the *Legions* of the Allies, and were as it were their Guard; with Room for the Volunteers, and Lodgments for some extraordinary Horse and Foot which might repair to the Camp: all which compos'd a perfect square, and beyond which square, was the 200 Foot street, which went along the four sides of the Camp. And this was a standing Rule among the *Romans*, that their Infantry was alwayes lodged the nearest to every side of the Line, or Intrenchment of the Camp, as those which were still to defend it, and shelter the Cavalry, which always were placed in the midst of the Lodgments.

When a Consular Army consisted of more than four *Legions*, they were lodged still in the same Order, but then the figure of the Camp was a long square in proportion to the additional Forces which were to be contained in it; and when both the Consular Armies were united, they took up the ground of two such perfect squares.

Every side of the Camp had but one Gate; that which was next to the Consuls Lodgment, was called *Pretorian*, extraordinary; the other three were called *Principal*, *Quintania*, and *Decumen*; but where they were placed, I find not. Nor in what place of the Camp was lodged, nor how much ground was allow'd, the two Lieutenants of the Consul, (one for each *Roman Legion*) nor for the *Prefect* of the Camp, (who was the chief for administering Justice) nor for their Victuals, Arms, Cloaths, and Engines of War, or their Carriages. But

But 'tis probable that the Gates were in the midst of every side of the Line; that the Lieutenants were quarter'd near the *Consul*; that the *Questor* had the larger scope of ground allow'd him, because under his care, was the Money, the Victuals, the Arms, the Cloaths, and the Military Engines.

But this we find, that the Tents of the *Romans*, to the time of *Julius Cæsar*, were all made of the Skins of Beasts.

There seem to be two considerable defects in the *Roman* Camping.

The first is, what was observed already, that the distance between the outwardmost streets of Hutts, and the Rampard, or Line, was not broad enough for the Horse, and Foot, which were to defend and scour it, especially the Files of their Foot being so exceeding deep.

The second is, that their Market-place could be but small, being within the Intrenchment of the Camp, which was also very incommodious, if not dangerous; and might with much more advantage and safety have been kept without the Camp, in some open place near it, and under the command of it, whereby none of the Countrey who brought their Goods to be sold, needed to enter into the Camp to spy, or set it on fire, or to surprize it; and keeping the Market out of the Camp, the Camp would thereby have been kept the cleaner, and less crouded, and consequently more wholesome.

Besides, so many Soldiers as were quarter'd in the Camp, of a Consular Army, could hardly, if possible, buy in a day, what the Market afforded, because the place it was kept in was so small, and the few streets to it, so narrow.

Sextus Julius Frontinus in his 4th Book of *Stratagems*, sayes, That till the *Romans* had vanquish'd *Pyrrhus* King of the *Epirots*, they never used a Line about their Camp, but lay in the open Fields; but having found that Princes Army intrench'd, they liked it so well, as that ever afterwards they practis'd it themselves.

The modern way of Camping, which I have seen, within a Line, or Intrenchment, is as followeth.

By Retrenchments, I do not only mean the Line cast up about the whole Circuit of the Camp, but also all sort of Works by which the Camp is invironed, and shut up, as Redoubts, Bastions, Ravelins, Forts, Tennailes, Hornworks, Crownworks, and all other sorts, which flank and defend the Outside of the Line, and such of them as are closed, the Inside of the Line, as Forts and Redoubts do.

The Ordinary Line cast up, to inviron a Temporary Camp, is about six Foot high, and three Foot broad at the top, which is in effect but a Parapett, or Breast-work.

1. The Basis or Breadth of the bottom from the Outside of the Out-Sod, to the Inside of the Inward-Sod, about seven Foot.
2. The sloping, battering, or Talud Exterior, about two Foot and an half.
3. Of the Inside but one Foot.
4. The Exterior height of the Line five Foot.
5. The Interior height of it six Foot.
6. The Breadth of the Foot Bank, or Banquet, three Foot.
7. The Height of it, one Foot and an half.
8. The Breadth of the Ditch, or Graft, eight Foot.
9. The Battering, or Talud Exterior and Interior of the Ditch, four Foot.
10. The Depth of the Graft, five Foot.
11. The Breadth of the bottom of the Graft, four Foot.
12. The Lisiere, or distance between the first Outwardmost Sod, and the Brink of the Graft, two Foot.

These are the Ordinary Dimensions of the Line and Ditch of a Camp intrench'd; but if the necessity require it, the one may be raised higher and of greater thickness, and the other made deeper and broader, accordingly.

'Tis to be observed as a standing Rule, That at the distance of every Musket-shot point blank, a Flanker must be made, either a Redoubt or a Ravelin, or Bastion, &c. and

at every Angle where the Line turns, a Bastion or Fort, they being the fittest Works to secure the said Angle, and to command the Lines on both sides. And those Flanker Works are commonly more high, and thick, and the Ditch of them more broad, and deep, than the Lines are ; for they are the defence of those Lines, since without them, when the Enemy came to the Ditch, they could not be offended considerably.

The raising of this Line, and these Flankers, is to be equally distributed between the Regiments of Foot which are not in Guard ; for those which are to Watch, and Fight for all the rest, till they come up ; and the Horse Regiments are exempted usually from these Works, being to provide Forage for their Horses, and to Scout, but they are to make their own Hutts themselves, to fetch in Forage, and to scour the Countrey. The Work therefore of Intrenching the Camp, is to be equally divided among all the Foot Regiments, every Regiment taking according to its number of Men, his equal proportion of the whole ; every Division of each Regiment relieving by turns, the other Divisions of it. As if a Regiment consist of 1200 effective Private Soldiers, 600 must be at Work for one hour, and the other 600 must at the hours end relieve them ; and so by *Spells*, till the Work be done, which must never be given off till it be finished.

Every 100 Soldiers ought to have one Commission'd Officer, one Serjeant, and one Corporal, to supervise those 100 Soldiers, and see that they lose no time, nor do their Work carelessly. Some must be employ'd to cut Sods ; others to carry them to the Work, either in Wheel, or Handbarrows ; some must be appointed to lay them, others to ram them, and cut, or pare them with a broad Spade ; some must break up the Earth of the Ditch, others with Shovels must cast it up within the Sod Work ; always filling the Earth between the Sod, as fast as the Sod Work rises ; and some must cut, and bring *Frith* to mingle with the Earth, which is cast up betwixt the exterior and interior facing of Sods, which will hinder the Earth from sliding.

Some Generals allow half the Regiments which are off the Guard, to be making the Hutts for themselves, and for those

those which Work at the Line, that thereby when they have done the Line, they may have their Hutts ready to rest in; and that their Comrades may provide for them, their Straw, and their Suppers.

This may well be allow'd in two Cases :

The first, where the Army is so numerous, and well provided, that half the Soldiers of it may suddenly compleat the Line.

Secondly, where you are certain no Enemy can assault you, while your Line is a making.

But where you are not certain of both these, especially of the latter, all other Advantages must yield to that of the general Safety.

Whatever Utenfils, as Spades, Shovels, Pickaxes, Wheelbarrows, Handbarrows, &c. are the Kings, and only lent to the Soldiers to make the Works; the Commissary of those Stores is to give them by tail, to the Commission'd Officer, who first supervises the Soldiers who are to Work, who is to give his receipt for them, as the Officer who relieves him in that Duty, must do the like to him who is relieved; and the Officer of the last relief of all, is to go with the Soldiers who are to carry them, and deliver them up by tail to the Commissary, who is thereupon to deliver up the first Officers receipt, which the last Officer is to send or carry to him that night; else the Kings Utenfils would be imbezel'd to his damage, and that of the service.

As to the Hutting and Camping of the Regiments, when the Line is finished, these Rules may be observed.

All along the four sides of the Line, I would still leave the space of 300 Foot, for the drawing up the Soldiers which are to defend the Line, in case it be attacqued, and for small Parties of Horse to scour it, in case it be entered.

A Foot Company is to be lodged as follows, supposing it to consist of 100 Men; which will also serve for a general Rule for the Lodgment of one Regiment, or 20 Regiments, if the Army to be Camp'd consist of so many.

The Ground to lodge 100 Men in, within an Intrench'd Camp, is 300 Foot in length, and 24 Foot in breadth; out of which 300 Foot in length, 40 Foot in length, and 24 in breadth,

breadth, is taken for the Lodgment of the Captain, between which Lodgment, and the first of the Soldiers Hutts or Tents, a void space is left, of 20 Foot in length, and the breadth is to be the very same of the whole Companies when they have Huttred, viz. 24 Foot.

From this void space of 20 Foot, the Soldiers begin their Street, or Line of Hutts in manner following :

There is left for them 200 Foot in length intire, and 24 in breadth ; the 24 in breadth is to be divided into three equal parts ; the middlemost, is to be the Lane, in the two outward two thirds ; the two Files of Hutts are to be made, and the Lane of 8 Foot is to be left between them ; and no Man must dare to enlarge or lessen his Hutt above 8 Foot from Out to Out, lest he thereby subvert the whole Order of Camping ; the length of every Hutt is to be at most 7 Foot, and 3 are to be in one Hutt.

I lay Incamp'd several years, and all in Tents ; the Troopers and Foot Soldiers had Trench-Tents, not so large as these sort of Hutts, yet I allow'd every six Foot Soldiers but one Trench-Tent, and every three Troopers but one Trench-Tent, (because of their Saddles and Furniture) and with this allowance, they were satisfied.

Behind the last Hutts of these two Files of Hutts, there is a void space of 20 Foot in length, and the breadth is that of the Lane, and the two Files of Hutts beyond which said void place, the Suttlers, and Victuallers, have their Hutts, which are 10 Foot long ; and their Hutts for their Drink, and for their dressing their Meat, is also 10 Foot long ; and this void space of 20 Foot between the Soldiers last Hutts, and the Hutts of the Victuallers and Suttlers, is left, because by continual dressing Meat for the Soldiers, the Hutts of the Victuallers are apt to take Fire, and this vacuity, in case they do take Fire, is convenient for People to quench it, before it can take hold of the Soldiers Hutts ; in none of which, on any pretence, Fire is to be allow'd.

So the whole 300 Foot in length for the Lodgment of one Company, is thus employed.

40 Foot for the Captains Lodgment.

20 For the Street between it, and the foremost Hutts of the Soldiers.

200 Foot

200 Foot for the Soldiers Hutts.

20 For the void space between their Hutts, and the Victuallers Hutts.

10 Foot for the Victuallers Hutts, and

10 Foot for the Kitchens and Cellars of the Victuallers and Suttlers.

In all 300 Foot in length.

The Doors of the Soldiers Hutts do all open into the Lane, and the Right-hand File of the Hutts, open just opposite to the Left-hand File of the Hutts.

Only the foremost Hutt of each File of the Hutts have their Doors to open towards the 20 Foot Street between them and the Captains Lodgment; of which two Hutts, one is for the Lieutenant, and the other for the Ensign.

And the two last Hutts of the File of Hutts, have their Doors to open towards the 20 Foot Street between them, and the Victuallers and Suttlers, in which two Hutts the two Serjeants are lodged

And the Victuallers and Suttlers Hutts are open towards the Hutts of the Soldiers, that the Soldiers may come to them in a direct Line.

This may be the Lodgment of an intire Company of 100 Men, with their Officers, and Suttlers, and Victuallers. But if a Foot Company consist of 150 Soldiers, then the Lodgment of that Company shall consist of the three Files of Hutts; and if it consist of 200 Soldiers, then it shall have four Files of Hutts, and three Lanes, and so more or less, as the Company is in number. But every Hutt, and every Lane, is to continue the same for its Dimension; and only the breadth of the ground for the Lodgment of it, is enlarg'd, but never the length of 300 Foot alter'd; else it would unavoidably disorder the Lanes or Streets of the whole Camp, which will be regular, while the length of every Lodgment is equal; so that a Company which consists of 150 Men, has 16 Foot in breadth added to it, 8 Foot for the File of Hutts, and 8 Foot for the Lane; but the breadth of the Captains Lodgment in the Front, and the Suttlers and Victuallers in the Rear, are still to be as broad as the whole breadth of the Hutts and Lanes, to

Z

make

make the long square of the whole Lodgment equal in the Lines, and in the Sides of it.

This is to be also observed, that between every five or six Hutts, a space of about three Foot is to be left, to hinder the Fire, if by any Accident it should take in any of their Hutts, which commonly are thatch'd; but the Victuallers Hutts ought alwayes to be cover'd with Sods, or the Hydes or Skins of the Beasts they kill, which are not so liable to take Fire.

In ancient Times they used Tents instead of Hutts, for then the way of making War was in the Field, and Armies were daily in motion; and in such cases, Straw, Rushes, or Flags, to cover, and Wood to make Stakes and Roofs were not alwayes at hand, nor to frame the Roofs easie; but now that for the most part War is made in the Besieging of strong places, or in standing Camps, both Officers and Soldiers use to Hutt, which is more warm, and more lasting than Tents; however, in the pitching of Tents, where they are used, the like Order may be observed, as is set down for Hutts.

I shall now proceed to shew how a Foot Regiment is to be Lodged, in an Intrenched Camp.

If a Regiment consist of 20, 18, 15, 12, 10, or 6 Companies, the Regiment is to be divided into two equal parts, and every Company of it is to be Lodg'd as the Company of 100, or 150, or 200 are; (as is newly before set down) and if there be an odd Company, let it be Lodg'd in the Files of Hutts of the Right-hand Division; if the Companies be unequal in number, it matters not for the length of 300 Foot being constantly observed, the breadth only varies according to the greatness or smallness of the Company; but the long square must still be observed, for the preserving the Regularity of the Camping throughout the whole Army.

When the Regiment is divided into two parts, there must be constantly allow'd 300 Foot in length for the Lodgment of the intire Regiment, but as to the breadth of the Lodgment, it varies according to the quantity of the Companies; alwayes keeping this standing Rule, as is before exprest, (*viz.*) that 200 Foot in length of the said 300, is to be kept

kept intire for the Hutts of the Lieutenant, Ensign, Sergeants, and private Soldiers with their Corporals, and every Company of 100 Men is to have 24 Foot in breadth for their two Files of Hutts, and the Lane between them of eight Foot wide.

The rest of the 300 Foot, *viz.* 100 Foot is to be thus divided, 40 Foot for the Lodgment of the Colonel, and each of the Captains (which takes up the whole breadth of the Lodgment of the Regiment) 20 Foot for the Street between their Lodgment and the Hutts in File, 20 Foot for the Street between the lower end of the Soldiers Hutts, and the Victuallers, 10 Foot for the length of the Victuallers Hutts, and the other 10 Foot for the Victuallers Kitchens and Cellars, which extend the whole breadth of the intire Lodgment of the Regiment.

Between the two Divisions of the Regiment, there is to be left a space of Ground of 68 Foot in breadth, throughout the whole 200 Foot in length, and 16 Foot more for two Lanes of 8 Foot broad, each Lane for a passage between the two inwardmost Files of Hutts, of each of the two Divisions of the Regiment; whereby an intire Regiment consisting of 10 Companies, each Company 100, together with the Lodgments of the Commissioned Officers, Staff-Officers, Non-Commission'd Officers, Suttlers, Victuallers, and for their Baggage, shall contain 300 Foot in length, and 388 Foot in breadth; that is, reckoning the length from the front of the Colonels and Captains Lodgments, to the Rear of the Victuallers and Suttlers Hutts, and the breadth is the wideness of all the spaces between the said length, else it would be incongruous to say the length was 300 Foot, and the breadth 388 Foot; which therefore I thus explain, that the Criticks may not except against the expression: for the length in such Incampings of a Regiment, is to be taken from the depth of the Files of the Hutts; and so from the Lodgment of one Company of 100 Men which has 300 Foot in length, and but 24 in breadth, the depth of the File of Hutts is still called the length of the Lodgment, though by the addition of the other nine Companies of the Regiment, the breadth is more than the length of the Lodgment. Besides, the length being still a
Standard

Standard for the whole Lodgment, that the Lanes or Streets of it may be kept regular, and the breadth accidental and variant, it having regard to the numbers of the Companies; that space which is from the front of the Officers Lodgment, to the Rear of the Victuallers Kitchens, is still called the length of the whole Lodgment, whatever the breadth may be.

This length and breadth then so explain'd of the entire Lodgment of a Regiment of 1000 Men divided into 10 Companies, may be distributed as follows :

The front of the Lodgment of the whole Regiment is to be taken up with the Lodgment of the Colonel, and that of the 10 Captains; the Colonel is to be in the middle, and five Captains Lodgments on the right hand, and five on the left hand, (reckoning the Captain Lieutenants for one of the Captains) the Lodgment of every Captain is to be 40 Foot in length, and 24 Foot in breadth; the Colonels, in regard of his Dignity and greatest Baggage, is to have 68 Foot in breadth, yet but 40 in length; thereby to keep the Street between the said Officers Lodgments, and the first of the Files of the Huts equally broad; between every Captains Lodgment, as also between their Lodgments, and the Colonels, is to be left a Lane of 8 Foot wide, which continues during the 40 Foot of the length of every of the said Lodgments.

The Colonels Lodgment, and every particular Lodgment of each Captain, is invironed with an Intrenchment five foot high, the Graff four foot deep, and four foot broad, within which is the Captains Hutt, the Hutt for his Stable, and the Hutt for his Kitchen, and the remaining void places of his Lodgment are for his Hay, Wood, &c. the like for the Colonels Lodgment according to its dimensions.

The Front therefore of the Colonels, and 10 Captains Lodgments, with the Lane of 8 foot wide between each Lodgment, takes up in breadth 388 foot : that is,

The Colonel in the midst 68 foot, the five Captains on each hand of his Lodgment, that is, ten times 24 foot, in all 240 foot; then the five Lanes of 8 foot wide each of them, that is, five times 8 foot on the right hand of the Colonels

Colonels Lodgment, and five times 8 foot on the left hand of it, in all 80 foot; so that 68 foot, and ten times 24 foot, and ten times 8 foot, make in all the 388 before mentioned, which is the intire breadth of the Lodgments of such a Regiment.

Every Captain is to have his Lodgment in the front of his Company, which with the two Files of Hutts, and the 8 foot Lane between them, makes 24 foot in breadth, which is the breadth of every Captains Lodgment.

The beforementioned space of 68 foot wide, and 200 foot long, which is to be left between the two beforementioned Divisions of the Regiment, is to be thus employ'd: (*viz.*)

One hundred foot in length thereof is to be divided for the further accommodation of the Lieutenant Colonel, and the Major, who being persons of greater quality, and consequently having more Retinue than the Captains, and yet being in the front of the Regiments Lodgment, allow'd no more ground than the Captains, are to be supplied with more in proportion to their need out of the said 100 foot in length, and 68 foot in breadth, of the space of ground between the said two Divisions of the Regiment, and the residue of the said 100 foot in length, and 68 in breadth, is for the Chaplain, the Marshal, the Chyrurgion, and other Staff-Officers of the Regiment; but the remaining 100 foot in length, and 68 foot in breadth of the said space between the two Divisions of the Regiment, is to be for the Wagons, Carts, &c. of the Colonel and his Officers.

The ground 200 foot long on each side of the two Divisions of the Regiment, is to be employed for the two Files of Hutts, and the Lane 8 foot wide between, which is for every of the 10 Companies, each of which is but to have 24 foot in breadth, for their two Files of Hutts, and the said Lane, and but 200 foot deep.

The two Streets between the Soldiers Hutts, and the Captains Lodgment in the front, and the Soldiers Hutts, and the Victuallers Hutts in the Rear, are each to be 20 foot wide in the Clear, and their length is the whole breadth of the Lodgment of the Regiment, *viz.* 388 foot.

Behind the last of these two Streets, are the Suttlers and

A a

Victuallers

Viſtuallers Hutts, Cellars and Kitchens, both which take up 20 foot of the length of the 300 foot, including the two foot ſpace between their Hutts, and their Kitchens, and Cellars.

Every Company is to have the Door or Opening of every Hutt towards the Lane, which is common to the ſaid two Files of Hutts.

In the Street 20 foot wide, which is between the Colonels and Captains Lodgments, and the front Hutts of the Soldiers, are uſually erected three Poles, or long Stakes of the figure of a Door-caſe or Gallows, againſt which the Pikes of the Company are to be ſet on both ſides; for the Hutts of the Enſigns and private Soldiers which trail Pikes, are not long enough to contain them; theſe are uſually placed 5 or 6 foot within the Street over againſt the opening of the Lane between the Hutts.

There are alſo four Stakes, or ſmall Poſts, with a Rail between every two Stakes, which are to lay the Soldiers Muſkets upon; the ſquare made by thoſe four Poſts is about 6 foot long, 4 foot broad, and 3 foot high; but if the weather be wet, the Soldiers keep their Muſkets in their Hutts. Theſe ſquares to lay their Muſkets on, are on each ſide of the Door-caſes where their Pikes are placed, and are 5 or 6 foot within the Street, but are over againſt the front Hutts, as the Pikes are over againſt the mouth of the 8 foot Lane; the Colours whether furl'd, or flying, are pitch'd in an even Line, between where the Pikes and Muſkets are reſted.

The *Ichnographie* of a Company, and then of a Regiment of 600 Men, and ſo for larger or ſmaller Regiments ſo lodged, is in the following figure Number 1, and for the clearer underſtanding thereof the *Scenographie* of it is in the figure Number 3.

And becauſe Troops of Horſe, and Regiments of Horſe, are often lodged in Intrench'd Camps, I have thought fit to ſet down how the Officers of a Troop of 100 Horſemen, and the Troopers of it, and of a Regiment of thoſe Troops, each of 100 Horſe are to be lodged, which will ſhew how larger Horſe Regiments are to be Incamped.

This

The following are the names of the persons who have been elected to the office of Justice of the Peace for the year 1900:

1087

1. The first part of the paper is devoted to a general discussion of the problem of the origin of life. It is shown that the problem is one of the most important and interesting in the history of science.

[illegible]

*The Ichnographie of
Consisting every one 100*

ABON the Lodgem^t of

the intire Regem^t of 600 men

A g k C one of y^e Cap^{ns} Lodgm^{ts}

a d b c the files of hutts for y^e

Cap^{ns} Company wth the Street

between them

X the 20 foot broad

Street between the Cap^{ns}

Lodgem^{ts} and the first files

of the hutts of the Sold^{rs}

Y the 20 foot Street

between the Sold^{rs} hutts

and the Suttlers

B D i k the 20 foot for

the Victuallers and Suttlers

hutts and Kitchens

Z the Colonells Lodgem^t

Z Z the Intervall

between the 2 divisions of

the Regim^t in w^{ch} first

100 foot thereof w^{ch}

fronts towards the Colon^{ll}

Lodgem^t is the L^t Colon^{ll}

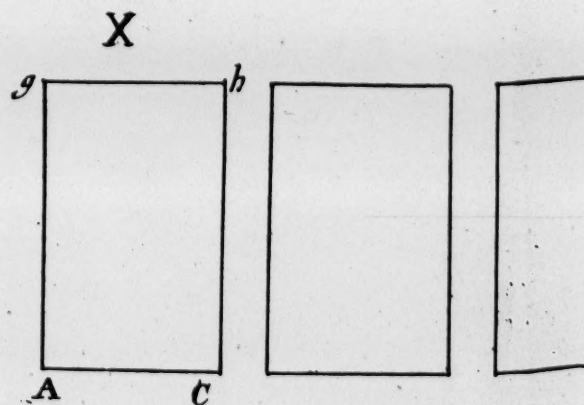
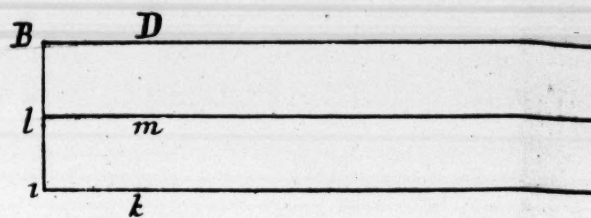
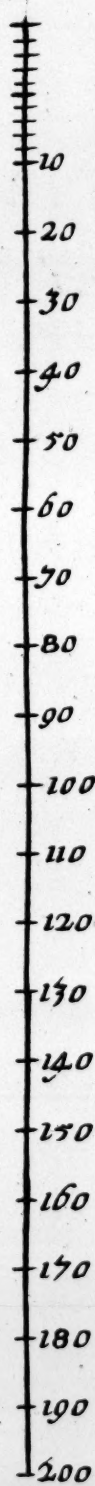
addiconall Lodgem^t wth the

Staff officers of the Reg^t

and the last 100 foot thereof

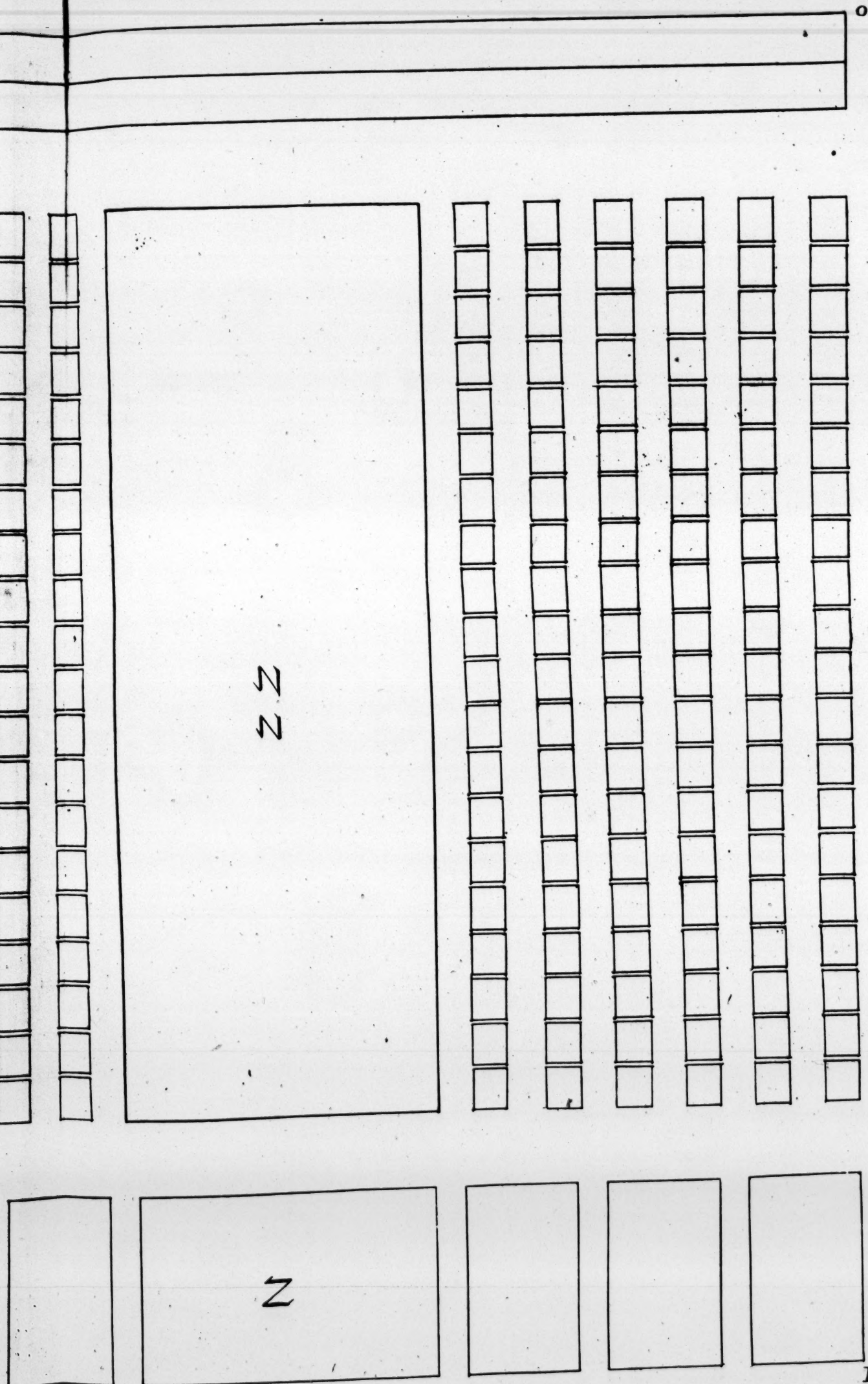
for the Carriages and

baggage of the Regim^t



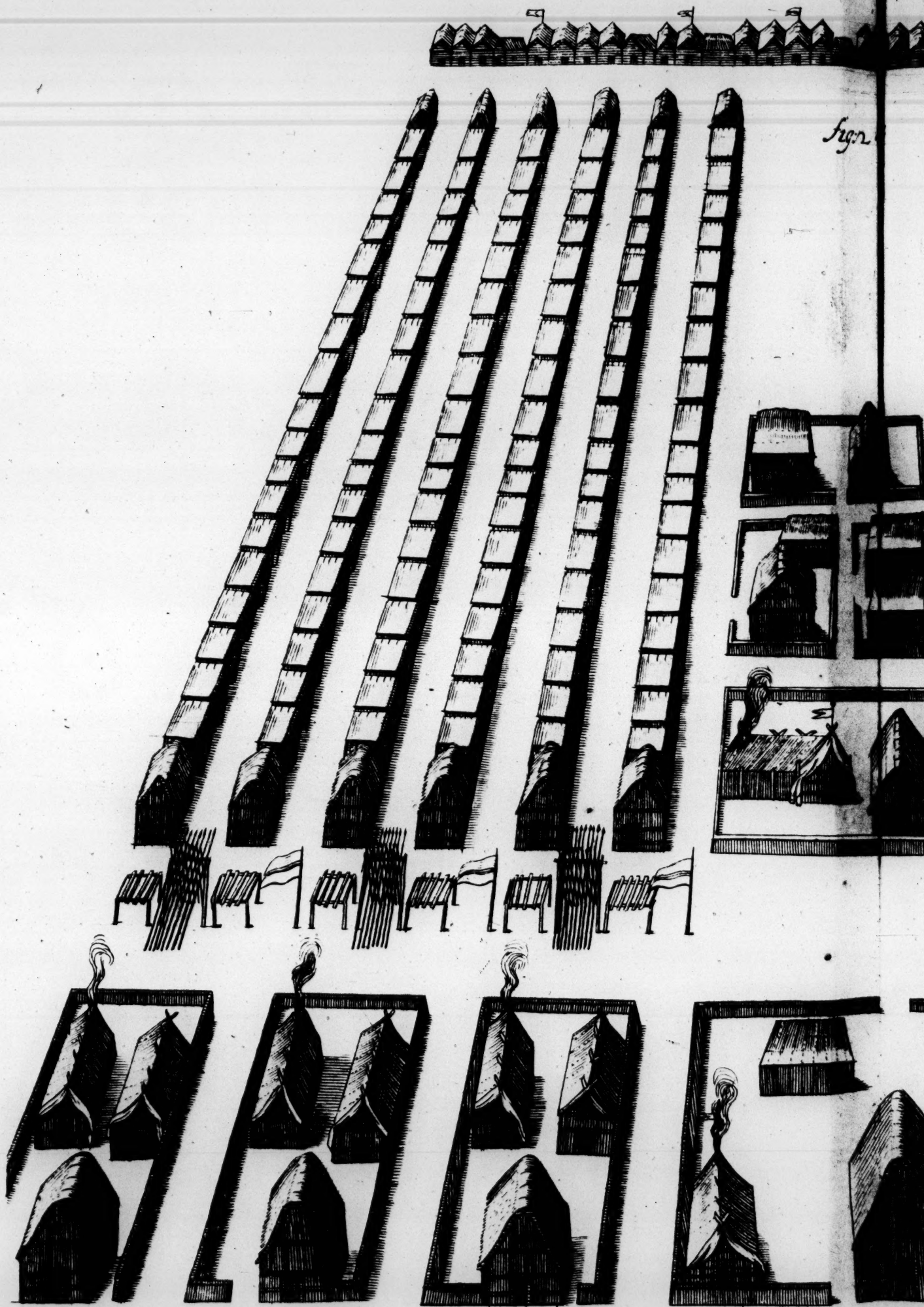
of a Reg^t of six Companys
100 men, in their Lodgments

fig first

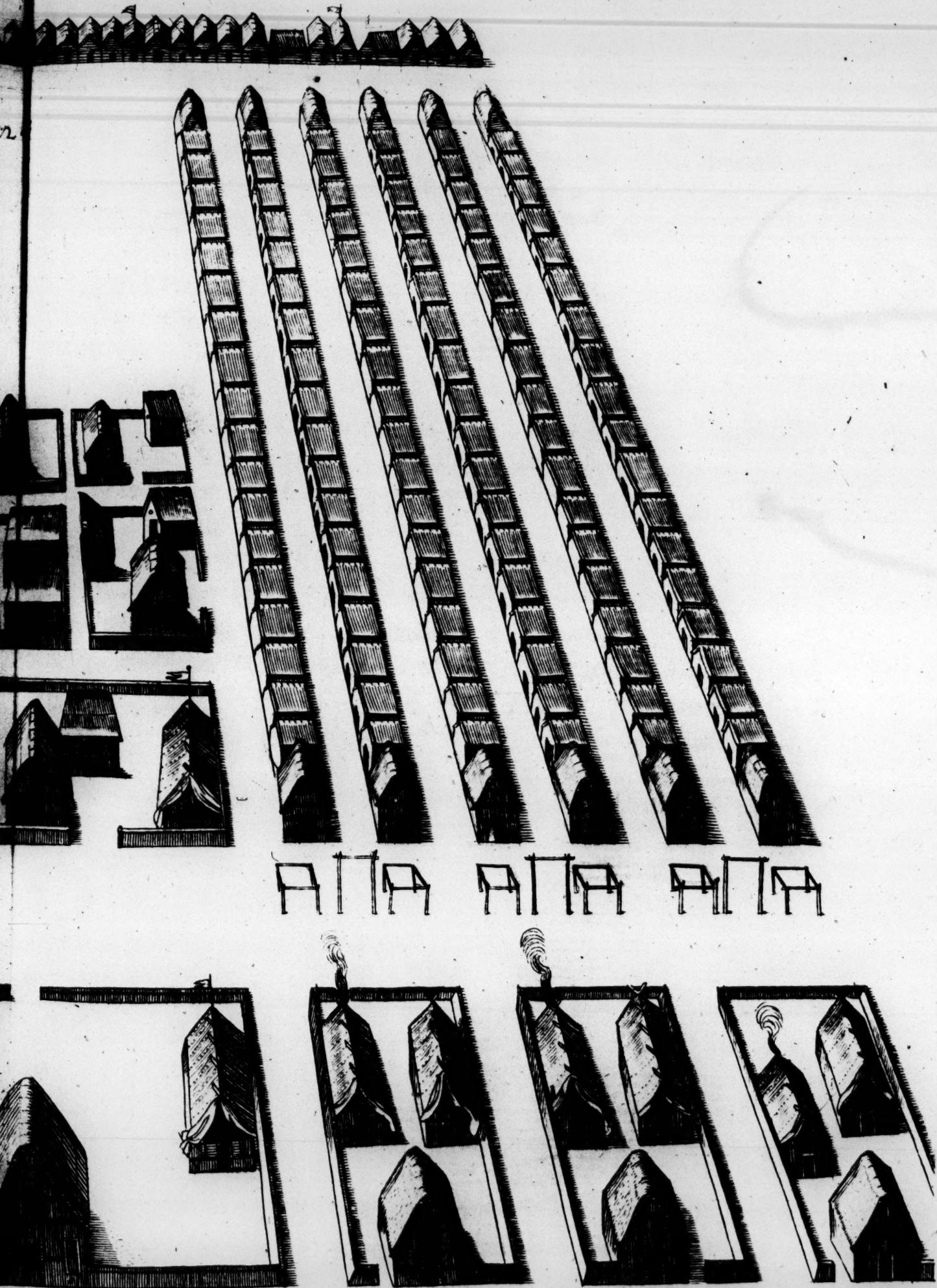


Place this foll: 90

the Scenographie of a Regiment of foote Consisting of



of Six Companies everij one of 100 men .



Place this foll: 90

This in the first place is a standing Rule, that the Cavalry in Intrench'd Camps is never to be mingled with the Infantry, but are to have their Lodgments distinct, else many incommodities would too probably happen.

Therefore for the Lodgment of a Troop of 100 Horse, I would observe this Rule.

The length of the Lodgment of it should be still 300 foot, as that of the foot is; but the Troop should have in breadth 70 foot, whereas the Company had but 24 foot, within which space of 300 foot long, and 70 broad, the Captain, Lieutenant, Cornet, Quartermaster, the three Corporals, the two Trumpets, and all the Troopers, with their Horses, Forage, and Victuallers, are to rest contented.

This quantity of ground is to be divided as follows:

In the Front of the said long Square shall be the Lodgment of the Captain, which shall take up 40 foot of the length of the 300 foot, and 70 foot in breadth, which is to be the whole breadth of the intire Troops Lodgment.

Twenty foot more of the 300 foot in length, shall be allowed for the Street between the Captains Lodgment, and the first Hutts and Stalls of the Troopers, and of their Horses, 200 foot more out of the length of the 300 foot, shall be wholly for the Troopers Hutts, and their Horses, Stalls, or Stables. There are to be (as in the Lodging of the Foot) no more than two Files of Hutts for the Men, and two Files of Stalls for the Horses.

The Street between the Files of Hutts for the Troopers, is to be 20 foot wide, and 200 foot long.

At the end of which 200 foot, is to be left 20 foot more out of the said 300 foot length, for a Street from the Rear of the Hutts, to the Victuallers Hutts and Cellars, which Street is to be 70 foot in length, being the breadth of the whole Troops Lodgments, the remaining 20 foot of the said 300 in length, is to be for the Victuallers, and Suttlers Hutts, Kitchens, and Cellars, as 'tis in the Lodgment of a Regiment of Foot.

The 20 foot Street 200 foot long, being taken out of the 70 foot wideness of the whole Lodgment for the Troopers, the 25 foot wideness of each side of the Street, is to be disposed as followeth :

Ten

Ten foot of the breadth of the 25 foot on each hand of the Troopers Street, and 4 foot of the length of it is for every Troopers Hutt, which lodges 100 Troopers in the two Files of Hutts on both sides the Street of 20 foot wide.

The Lieutenant and Cornet of the Troop are to lodge in the Front of the two Files of Hutts, which are to lodge the Troopers, the Quartermasters and the Corporals are in the Rear of the said two Files of Hutts, which fronts against the Suttlers and Victuallers Hutts.

Five foot more of the said 25 in breadth, is to be for a Lane on each side the whole length of the 200 foot, between the Troopers Hutts, and the Horses Stalls; and the remaining 10 foot, in breadth of each side, is to be for the Horses Hutts or Stalls, every Horse having, as his Rider, 4 foot of the said length, and 10 foot of the said breadth; the Troopers accommodation is larger, because of his Armour and Furniture.

The Hutts for the Horses are to be left open behind, and before, and only shut up on the two sides, but cover'd over head to defend them from the rain, great cold, and great heat.

Every Horses head is to stand towards his Riders Hutt, that he may the better and the oftener have his eye on his Horse.

They make little Mangers of Canvas for their Horse to eat their Hay, Chopped Straw, and Oats in, which are supported by 4 little stakes at the 4 corners.

Between every 5 or 6 Hutts of the Troopers File, they usually leave a space of 4 or 5 foot, for the Troopers to pass from their Street, to their Horses Hutts.

This may be the manner of Lodging a Troop in an Intrenched Camp.

And then the like measures and methods may be observed for the Lodgment of a Regiment of Horse consisting of three Troops, or more, as has been mentioned for a Regiment of ten Companies, or more, or less, which for brevity I will not enumerate, but set down in the Map Figure (2) the *Ichnographie* of a Troop of 100, and Regi-

The following is a list of the

names of the persons who

have been appointed to

the various offices of

the city of New York

for the year 1880

and the names of the

persons who have been

appointed to the

various offices of

the city of New York

for the year 1880

and the names of the

persons who have been

appointed to the

various offices of

the city of New York

for the year 1880

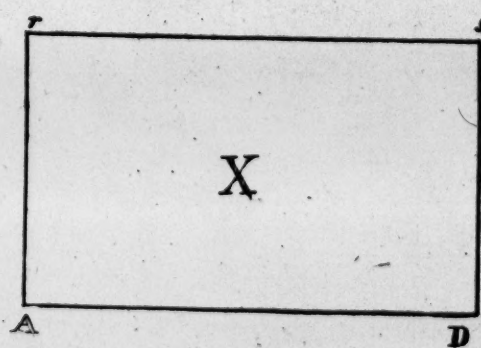
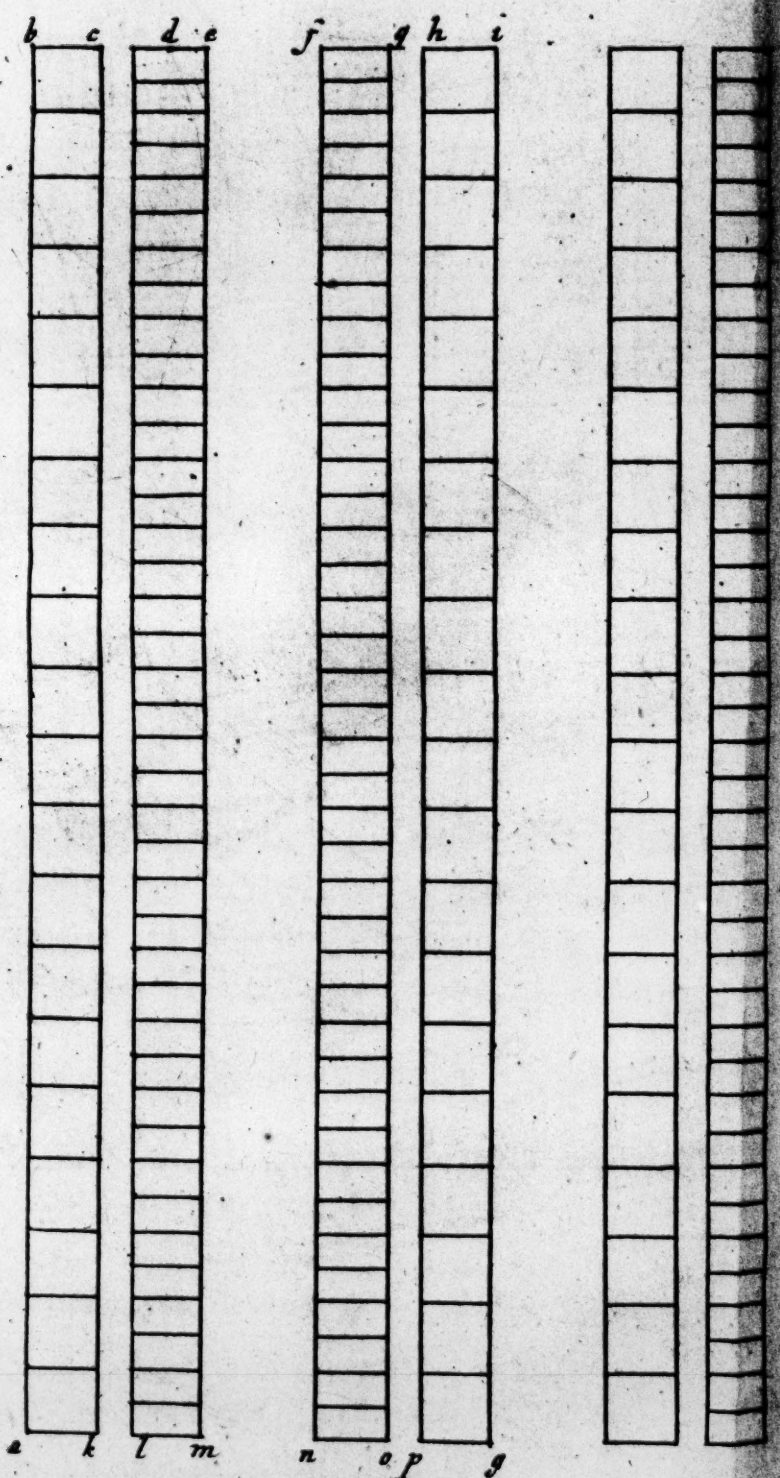
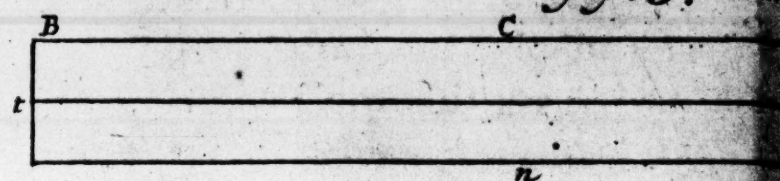
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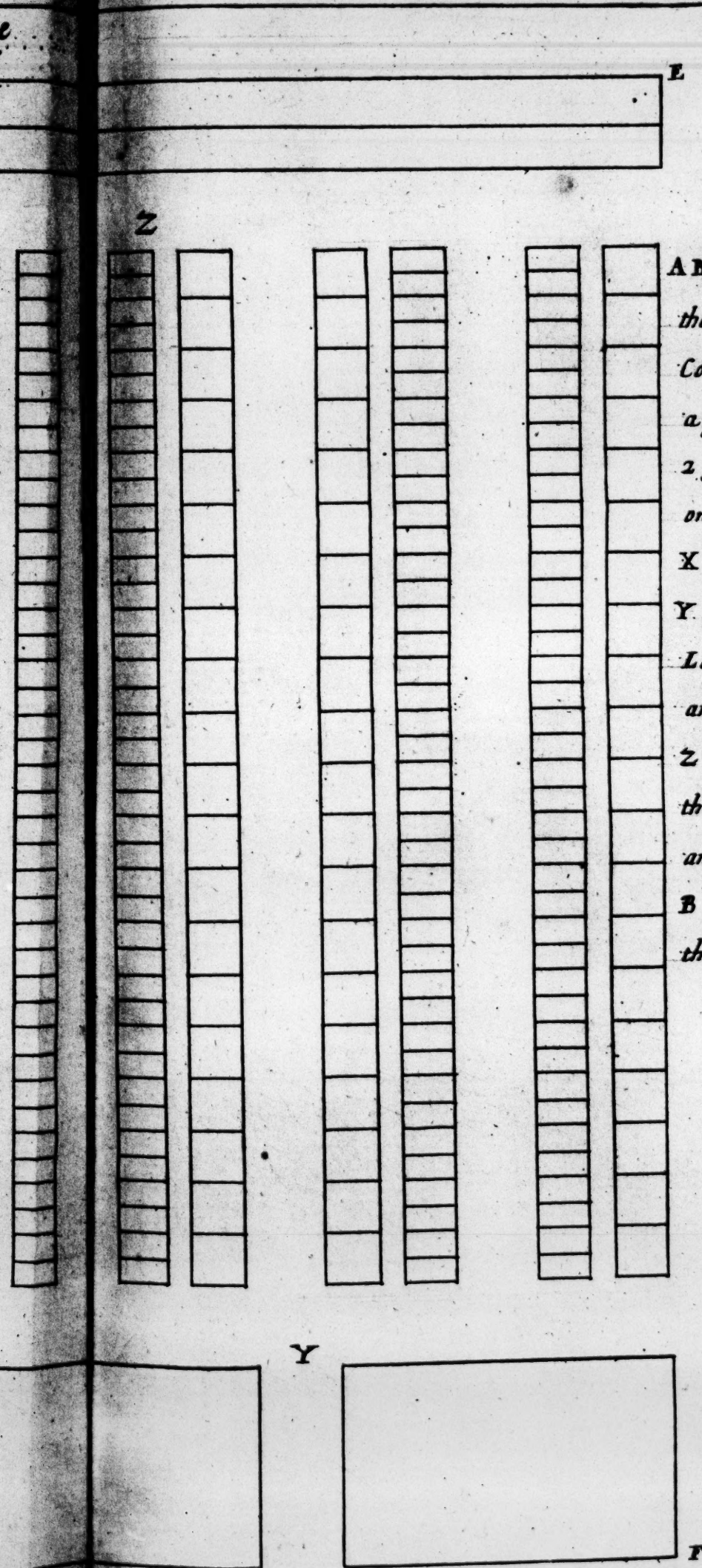
The Ichnographie of a
in their Lodgm^{ts} every one Confis

fig: 3^d



a *Set of Three Troops*

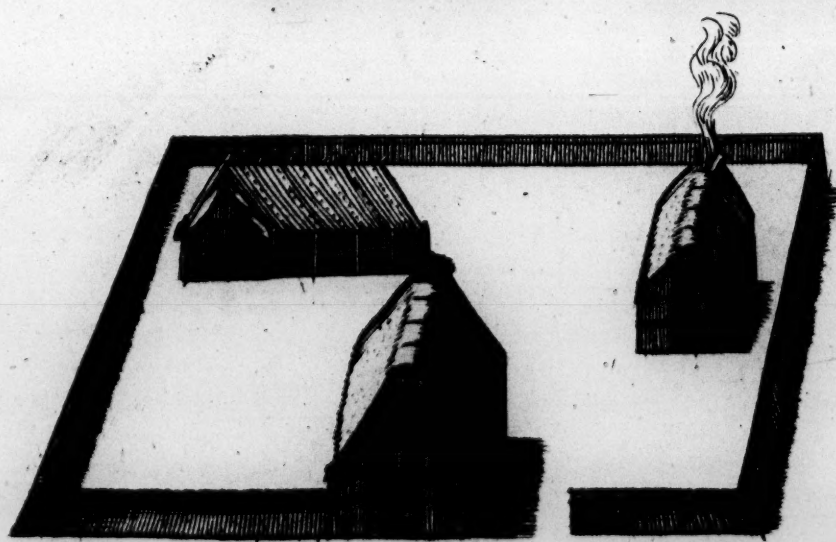
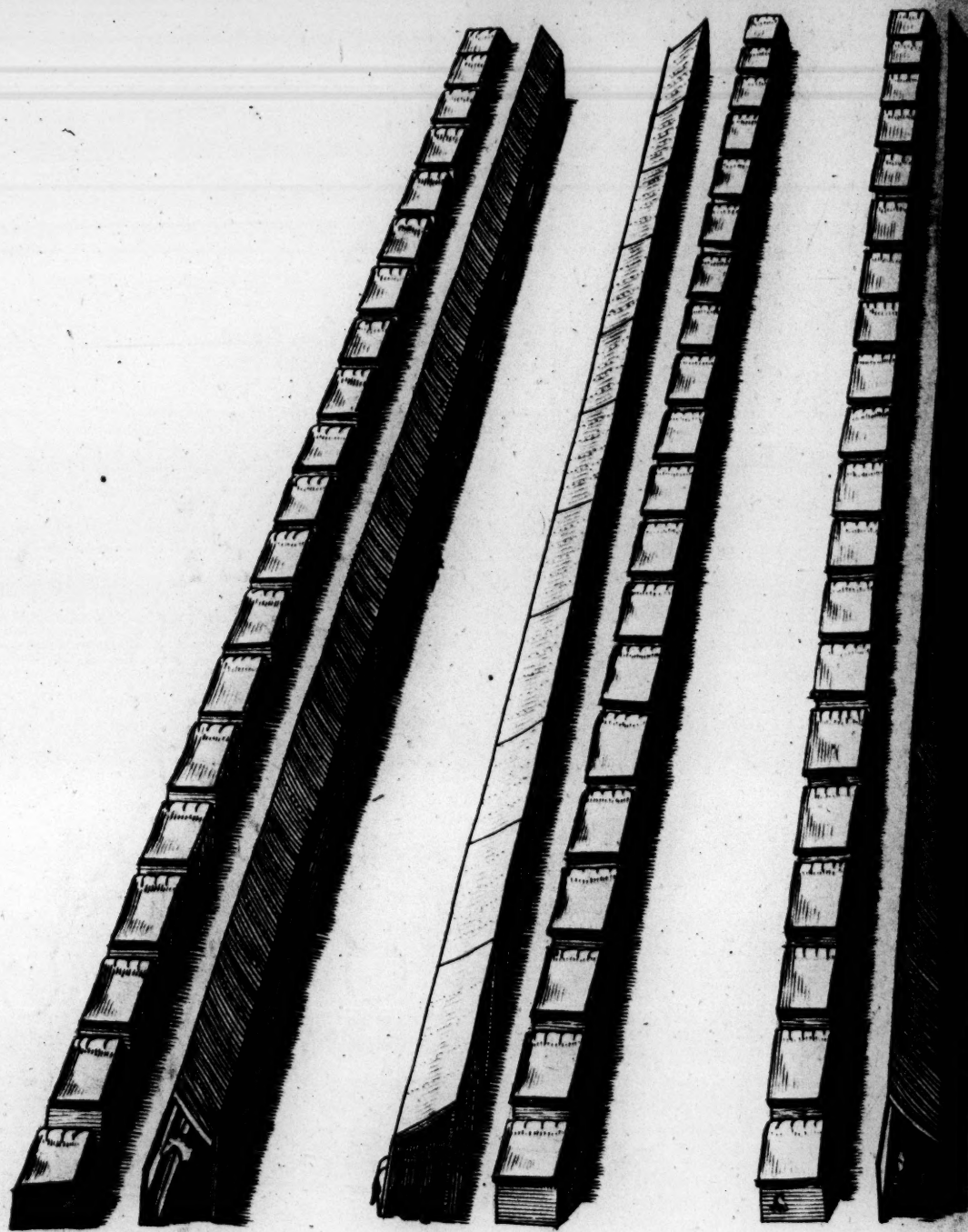
consist of 100 Troopers with their horses



ABEF the whole Contents of
the Regiment of horse of 3 troops
Containing in all 300 men
a g b i the 2 files of huts and
2 files of stalls for horses for
one troop wth the Street between them
X the Captains Lodgement
Y the Street between the Captains
Lodgem^t and the files of the troopers huts
and the stalls for their horses
Z the Street between the files of
the troopers huts and the Victualers
and Suttlers huts and Sellars
B C t n the Suttlers 20 foot for
their huts kitchens and Sellars

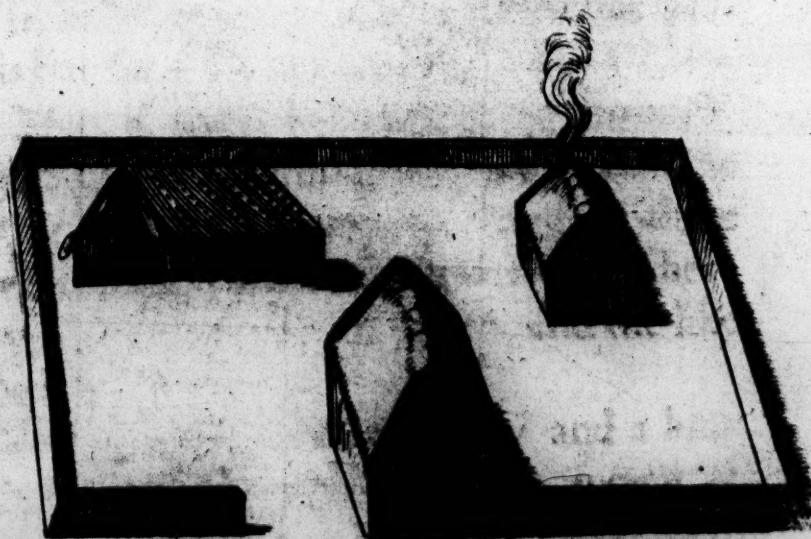
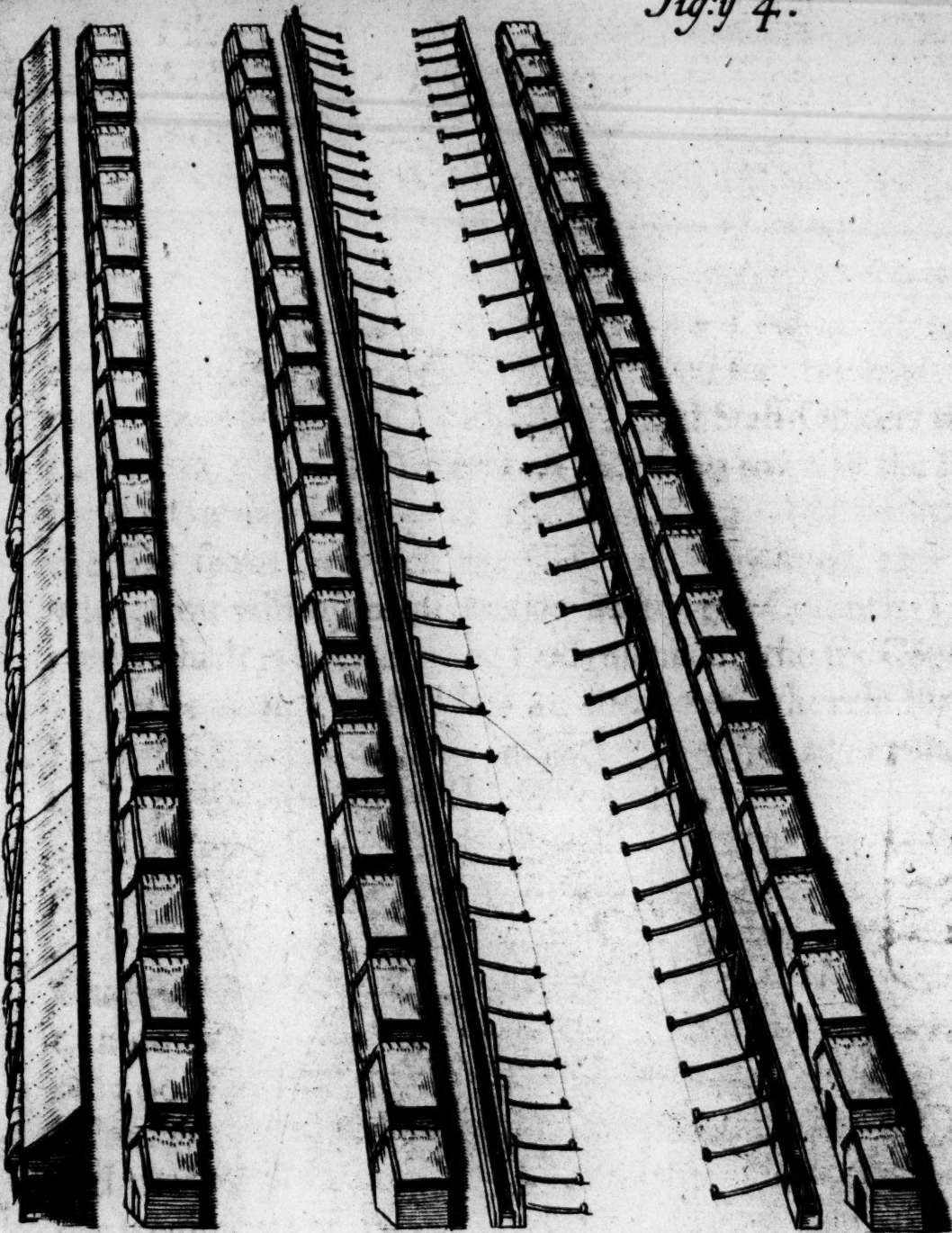
Place this foll: gr

The Scenographie of a Regiment of Horse Cavalry



Arrangement of three Troopes, every one of 100.

fig: 4th.



Place this Coll:gr

A

B

t

Regiment of 300 Horse; and in the Map Figure (4) the *Scenographie* of it, for the rendring it more easily intelligible and practicable; only on the right hand of the Regiment, I shew in the *Scenographie* Map, how the Horses Stalls are to be before the Horses are in them.

To which I shall only add, that whereas the space between the 2 Divisions of a Regiment of Foot, is but 68 Foot, I would have it for a Regiment of Horse of 600, double as wide, that is, 136 foot; within which breadth, and 200 foot long, 100 foot towards the front of the Lodgment, (as in the Foot Regiment) shall be employed for the better accommodation of the Field-Officers, and Staff-Officers of the Regiment; and the other 100 foot long towards the Rear, for the Carriages, &c. of the Regiment: and by making the said space between the said two Divisions, 136 foot wide, you will by consequence make the Colonels Lodgment, which is between the Lodgments of the six Captains, 136 foot wide, but still but 40 foot long, wherein his own Hutt, his Kitchen, Stable, and other needful accommodations, may be the better placed.

The Lodgment of a Regiment of 300 Horse consisting of three Troops, takes up in length 300 foot, and in breadth 408 foot of ground, the *Scenographie* of such a Regiments Camping I only present, because the Page could well contain no more. But in a Regiment of six Troops, every one of 100, I would leave the Interval before mention'd between the two Divisions for the Reasons before set down, and the like Rule may be observ'd proportionately for larger Regiments of Horse.

And lastly, still 'tis to be observed, that whereas the present Computation is but for a Troop, and for a Foot Company each of 100 Men, if they be 150, or 200 to each, the breadth must be enlarged accordingly, (but never the length) and where a Troop or Company is 150, there must be two Streets, and three Files of Hutts; and where it is 200, three Streets, and four Files of Hutts, and the like for the Stalls of Horses.

The before mentioned methods were usually and a long time observed by those Generals who regularly incamped their Regiments and Armies. But as in all other Arts, so in

War, Alterations are made sometimes, (I wish I could say alwayes) to the improving of it effectively. But sometimes the Capriciousness of a General, otherwhile the Affectation of having the Honour to him and his Nation of altering old Forms, produces those Changes which only should be the effect of clear Ratiocination on Experiments.

I will therefore shew what Change has been made, in the Incamping of Regiments within these 60 last years, and then the alledged Reasons for the doing of it.

The 300 foot in length still remained as a Standard in all Incampings of a Troop, Company, Regiment of Horse, or Regiment of Foot, for the Lodgment the breadth varied according to the numbers which were to be lodged, but the 50 foot wideness for the Streets, and distance between gross Lodgment and gross Lodgment, has been often alter'd, and sometimes all, or many of the Streets, enlarged to 100 foot, but seldom, if ever, has exceeded.

The old way of Lodgment was, as I have set down.

The new way is thus: The Colonels Lodgment is 80 foot in length in the forepart of the Interval, between the two Divisions of the Regiment, the hinder part of that Interval being 100 foot in length, is for the Wagons, and other Carriages of the Regiment, 180 foot of the 300 foot in length is all that is allow'd for the Hutts of the Soldiers, from the Rear of which Hutts, was 20 foot of a Street left, and then in the whole breadth of the Lodgment is the Lieutenant Colonels, Majors, and Captains Lodgment of the Regiment, beyond which was 40 foot left for another Street, beyond which was the 20 foot for the Victuallers, and Suttlers Hutts, Kitchens and Cellars; in the Front of the Lodgment, as the Door-cases, and Squares to place the Pikes, and Muskets of the Soldiers, between which, the Colours were to be placed, either flying or furl'd; and nothing else was between the Front of the Files of the Soldiers Hutts, but the 300 foot vacuity to the Line which environ'd the whole Camp. I know that the usual breadth of that vacuity, properly called the Alarm place, is but 206 foot wide, whereof 6 foot for the Parapet; but I should recommend the breadth to be 300 foot (for the labour is not much more in the whole

whole Circumvallation) the Alarum place then would be larger, for all needs both for the Horse and the Foot, the Camp the more Airy; and the more spacious the Alarum place is, the unlikelier to be Miry; but where any part is Miry, it ought to be well gravel'd or pitch'd with stone as Streets are; in the Front Hutts, the Lieutenant and Ensign were lodged; in the Rear Hutts, the Serjeants and Corporals; the Lodgment of the Chaplain, the Quartermaster, and the Chyrurgion of the Regiment, were in the Interval of the 68 foot between the two Divisions of the Field Officers, and Captains Lodgments, and are equal in length, and depth to them; only they had but 68 foot wideness of that Interval for their three Lodgments, the Provost Martial of the Regiment had his Lodgment in the 68 foot Interval between the two Divisions of the Hutts of the Suttlers and Victuallers, in an equal Line with them, as is demonstrated in the Figure Number 5, which is the *Ichnographie* of such Incamping, with the Alphabetical Table of Reference there-to belonging.

The Reasons of this Change are :

I. The Soldiers upon any present necessity, could not so expeditiously draw out into the Alarm place, because of the narrowness of the passages between the Colonels, Field Officers, and Captains Lodgments.

II. Because not only the Colours, Pikes and Muskets were somewhat cover'd from the sight by the Field Officers and Captains Lodgment, which by this method are fully exposed to the view, and make a handsom and formidable shew, but also they are readier to be handled by the Soldiers, and they to draw up in a moment to defend the Line.

III. To prevent, or immediately to punish the insolence of the Soldiers upon the Suttlers, and the Suttlers imposing ill Food, or hard Rates on the Victuals and Drink they set to the Soldiers, which it was believed would be more hopefully hinder'd, or more expeditiously redrest, when the Field Officers and Captains Lodgments, were between the Soldiers Hutts and the Victuallers, than when only the Serjeants and Corporals were nearest to do it.

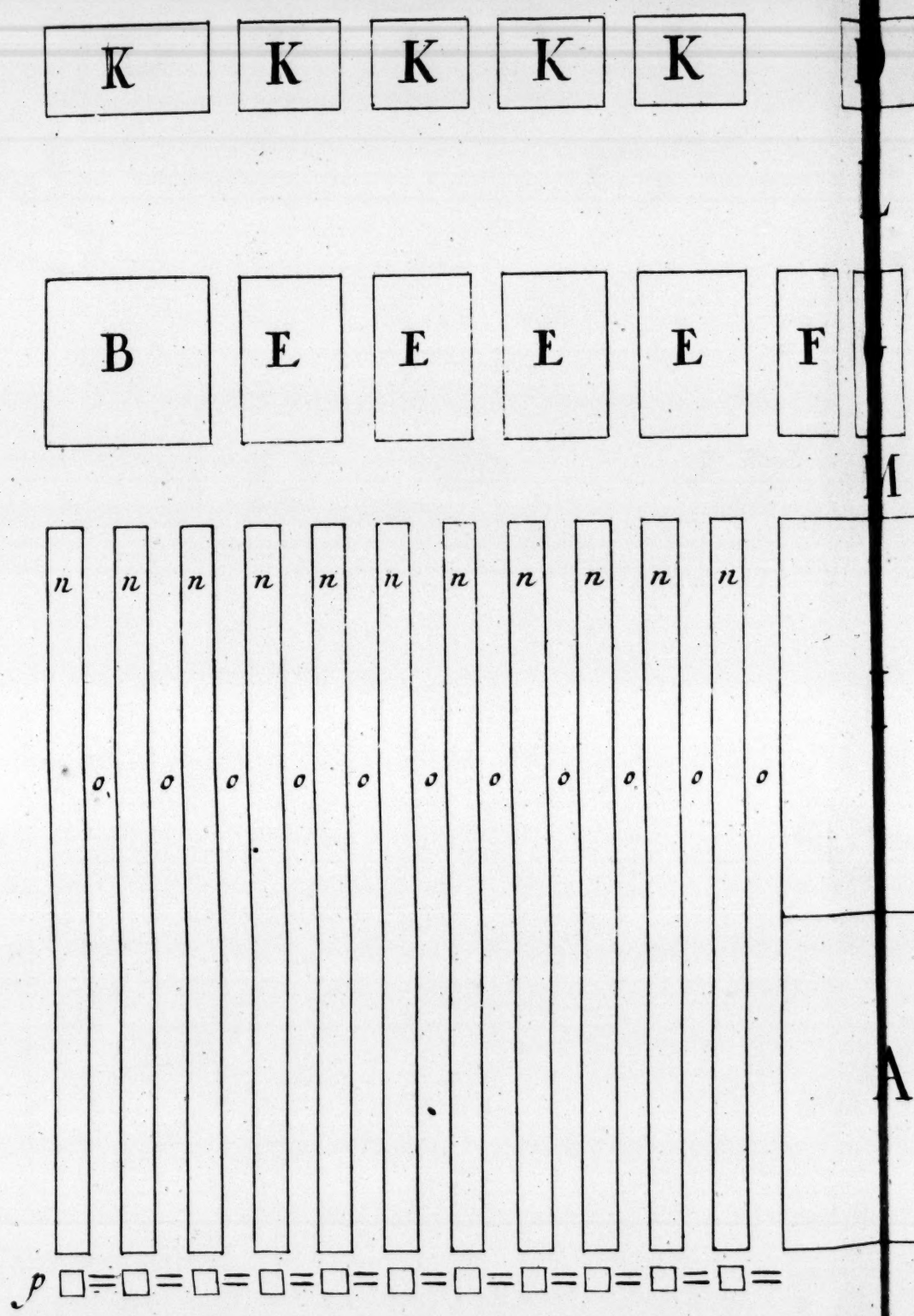
IV. The 40 foot wide Street between the Field Officers and Captains Lodgments, and the Hutts of the Victuallers, was judged most convenient, because a 20 foot Street, the whole wideness of the Regiments Lodgment, was thought too narrow for the great resort of Wagons, Carts and Carriages which were daily brought to furnish the Suttlers and Victuallers, and in which Street the Soldiers usually stood which were to buy their necessaries of them. In the observing this newer way of Incamping, these four Inconveniences seem to attend it.

1. The Lieutenant Colonel and the Major have thereby no further Accommodation as to their Lodgment, than the Captains, though their Baggage and Equipage is usually greater; unless the number of their Companies do make 2 or 3 Files of Hutts requisite for the Soldiers, in which case only the breadth of the Field Officers Lodgments was proportionately enlarged.

Fig: 1st

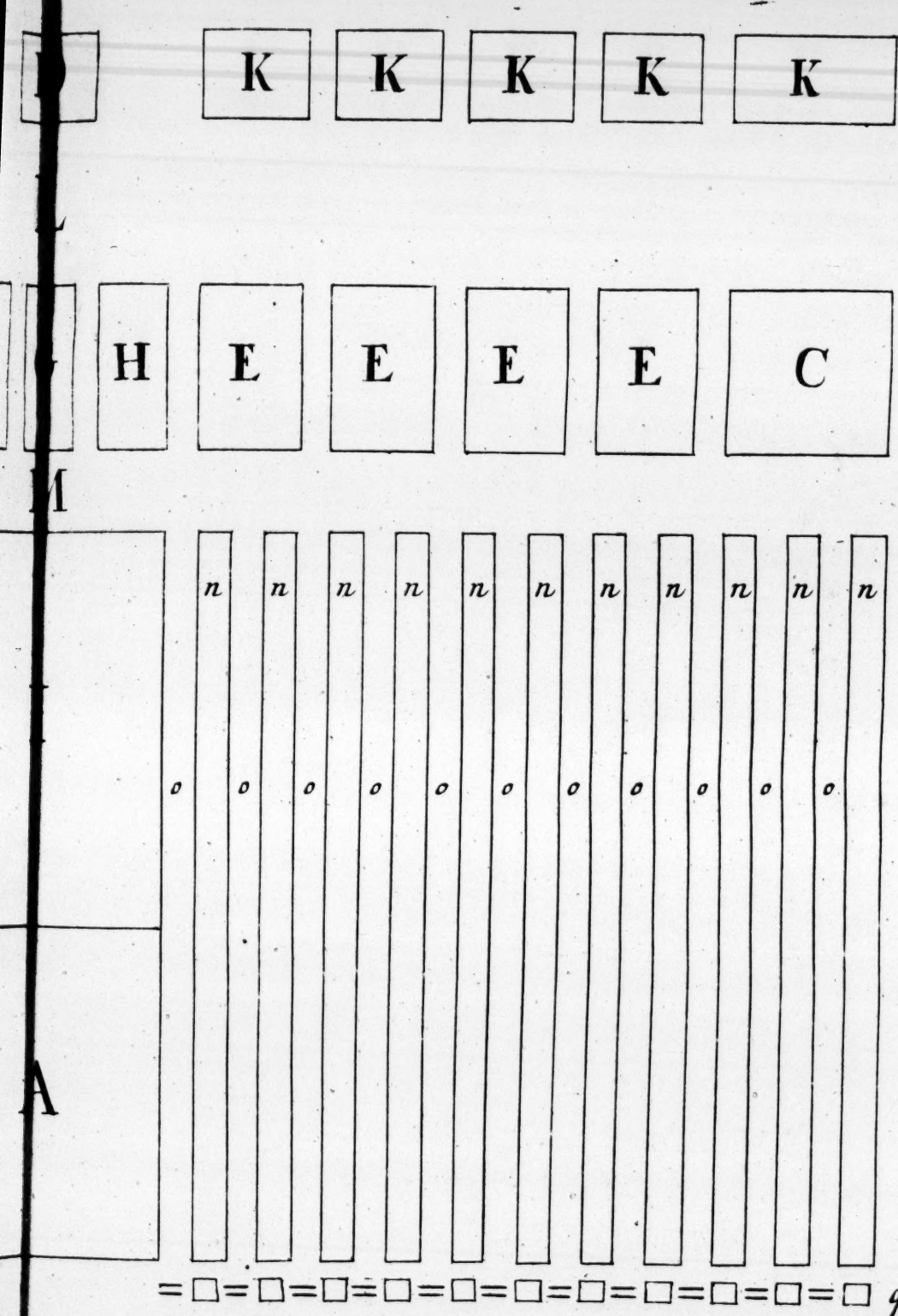
8 10 20 32 40 50
100
150
200
250
300

A scale of 300 foot



A the Colon^{ls} Lodgem^t 68 foot broad & 80 foot long
 B the 2^d Colon^{ls} Lodgem^t 40 foot broad & 40 foot long
 C the Majors Lodgem^t 40 foot broad & 40 foot long
 D the Provost Marshalls Lodgem^t 20 foot long & 24 foot broad
 E the Captains Lodgem^t 40 foot long & 24 foot broad
 F the Cherurgeons Lodgem^t 40 foot long and 17 foot broad
 G the Quarterm^{rs} Lodgem^t 40 foot long and 17 foot broad
 H the Chaplains Lodgem^t 40 foot long and 17 foot broad

Fig. 8. sh.



I the Vacuity for the Carriage &c 100 foot long & 68 foot wide
 K the Suttlers and Victuallers huts 20 foot long and wide
 according to the Company they belong to
 L the Street between the Officer's Lodgements and the
 Victuallers 40 foot wide
 M the Street between the Officers Lodgements and the
 files of huts 20 foot wide
 n the files of huts for y^e Souldiers 180 foot long & 8 foot wide
 o the Lanes between the sd huts 8 foot wide
 from p to q are the places for y^e pikes and muskets
 the Square ones whereof are for y^e musket

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2. All the Field Officers, except the Colonel, and all the Captains, are almost in the very Rear of the Lodgment, and consequently farthest from the Line and Alarum place, where they ought to be the very first.

3. There is no Breast-work between the Line of Circumvallation, and the very Colours and Arms of the Regiment, so that should the Line by surprize be entred by the Enemy, he may the more easily act his ends.

4. Twenty foot in the length of the 200 for the private Soldiers Hutts, is cut off, which may streighten them too much.

Whereas in the old manner of Incamping, there seems to be these Advantages.

First, The Colonel, Lieutenant Colonel, Major, and all the Captains, are at the head of the Lodgment, and nearest the Alarum place, and the Line, where they ought in time of need to be the very first; as well to give the requisite Orders to the Guards in Function, as to act in their own persons; and also the more to hasten the Soldiers to them, which they are the more apt to do, when they know their chief Officers are on the place to take notice who is most diligent; and to dispose of them to the best advantage of the service, as fast as ever they come.

Secondly, The Field Officers and Captains are nearer the Colonel, to receive and obey his Orders, in time of sudden need.

Thirdly, The Accommodation for the Lieutenant Colonel and Major is certainly larger, though their Companies in number should be but equal to the Captains.

Fourthly, The private Soldiers, Corporals and Ensigns, and Lieutenants, have 20 foot more in length for their Hutts.

Fifthly, The Regiments Lodgment is open in the Front of it, which also being next the Alarum place, where all Men generally walk and pass their time, the Colours and Arms of the Regiment are the more exposed to prejudice, and imbezling.

Sixthly, The whole Lodgment of the Regiment is shut up by the old way of Incamping, and the Lodgment of the Colonel, Field Officers, and Captains, being every one in-

viro'd with a Breast-work, it makes, as it were, a Retrenchment within the Line of Circumvallation, and renders it the more defensible, as also it more certainly covers and secures the Colours, Pikes, and Muskets, by their having the Colonels, Field Officers and Captains Lodgment, between them and the Alarm place; for none can come but within the Regiments intrench'd Lodgment, to impeach or prejudice them.

As to the narrow passages between the Field Officers and Captains Lodgment next the Alarm place, it needs be no narrower than the Lane between the Files of the Soldiers Huts, and if they will pass the one, they may as well pass the other, nay, better do it; for the utmost length of those narrow passages, is but 24, and the utmost length of the Lane is 180 foot.

I have thus shew'd the Forms of the ancienter and newer way of Incamping a Regiment, and what advantages and disadvantages seem to attend them, and so leave it to the judgment of those who shall command in chief, to elect which form (all things consider'd) they most approve.

Before I conclude what is to be observed in the Incamping of a Regiment, I shall set down these two following particulars.

1. When that Regiment is to be quartered in one Division, which has also often been done, (especially when Incampings are but for a very little time) the more to shorten the work of Intrenching the whole Army, the usual manner of the Lodgment of the Companies of it, is thus: The Colonels Company is quartered on the right hand, the Lieutenant Colonels on the left, the Majors next the Colonels, the eldest Captains next to him, and so all the rest of the Captains by their Seniorities in order, from the right hand.

2. If the Regiment be quartered in two Divisions, which is the usual practice, then the Lieutenant Colonels Company quarters on the right hand of the second Division, and the Serjeant Majors Company on the left hand of the first Division; the eldest Captains next the Colonels, the second on the left hand of the second Division, the third next the eldest,

eldest, the fourth next the Lieutenant Colonels, the fifth next the third, the sixth next the fourth in the second Division, and so all the rest of the Captains according to this order.

This is the usual method, but in the *Ichnographie* in the newer way of Incamping a Regiment, I have placed the Lieutenant Colonel and his Companies Lodgment, to close the right flank of the right hand Division, and the Majors, to close the left flank of the left hand Division; whereby the Colonel is in the Centre of the Lodgment, the Lieutenant Colonel on the right flank of the Regiment, and the Major on the left; which seems to be the best form of distributing the Lodgments of the three Field Officers, and in my poor opinion, will sooner and better answer the service on a sudden; for by the new Form of Incamping, all the Field Officers, and Captains of the Regiment, being lodged in the Rear of the Lodgment, are consequently farthest from the Alarum place, and Line of Circumvallation; and can hasten to it with their Soldiers, but through Lanes 8 Foot broad, where but 3 Men at most can pass a-breast; and therefore I offer to consideration the Lodgment of the Lieutenant Colonels and Majors with their Companies, to be on the right and left flanks of the Regiment; for all gross Lodgments are to be divided the one from the other, by Streets at least 50 Foot wide; through which Street on either flank of the Regiments Lodgments, the two Field Officers of it, may readily march their Men up to the Alarum place about 18 a-breast, when as by their own and their Companies being lodged the usual way (the Lieutenant Colonel on the right hand of the second Division, and the Major on the left hand of the first) they and their Companies have but 8 Foot passage to that place of action; where 'tis to be wish'd, they were still the very first, and well follow'd.

But since this is not according to the practised Form, I only propound it to consideration with some of the Reasons which makes me do it.

Having thus shewed the several wayes of Incamping a Regiment, I shall now proceed to shew how an Army may be Incamped within a Line or Intrenchment, with the several

ral gross Lodgments for the General, the General Officers, Train of Artillery, Carriages, the Regiments of Horse and Foot, and all other gross Lodgments and Requisites belonging to an Army.

Only I would first recommend to Consideration, That the Lodgment for the Powder, Fireworks, and other combustible things, be at one of the Angles next the Alarum places; because two parts of four of that Ground, is not near other Lodgments, and in which, if Fire should take by accident, or design, (unless the Wind blows maliciously) they may the better avoid the danger of it.

I would still have the Powder, and Fireworks, in the General of the Artilleries own Lodgment, and in a Redoubt apart cover'd with Hair-cloth, or Sod; where his own eye, and the immediate care of his own Officers may prevent, or remedy much mischief.

I would also recommend that the Lodgments for the Cannon, and Wagons of the Train, might be next to one of the sides of the Alarum place, that the bringing them in, and drawing them out, on any occasion, may be with less incumbrance to the rest of the Camp; which will follow, if the 300 foot wideness of the Alarum place, and not the 50 foot streets, be made the passage to their Lodgments. When the Ground for Incamping is pitch'd upon, the usual way to put the doing of it in practice, is, That the Quartermaster General, and the Officers belonging to him, or who are to receive their Orders from him, together with the Engineer General, and his Assistants, do forthwith meet, and on fine Pasteboard draw several parallel Lines by a small Scale, at 300 foot distance, (for that is the standing measure of the length of every gross Lodgment) and then besides the said 300 foot parallel Lines, to draw other parallel Lines of 50 or 100 foot asunder for the streets, between the first Line of the gross Lodgments, and the second Line of them; and so in sequence till they have Lodgment Lines, and street Lines for all the Army to be Incamped; then calculating what breadth every Lodgment is to consist of, according to the exact numbers of every Regiment, both as to the quantity of the Companies and Troops; and as to the true number of every Troop and Company, to divide the
said

said parallel Lines at 300 foot distance, into the due breadth of every Regiments Lodgment respectively, and so of all other gross Lodgments ; and to write in the square for the Lodgment, the name of the gross Lodgment, or of the Regiments, with the number of feet allow'd in breadth to every Lodgment, and an Alphabetical Letter in it, to which reference is to be made. This being done, to cut off of the Pasteboard every Lodgment, and then to turn them to and fro, until you have adjusted them on a large sheet of Paper, into a long Square, with the Streets between every Line of the Lodgments, which are to be at least 50 foot wide , the whole breadth of the Armies Incamping, and then the other Streets of the like wideness, where it may be between every gross Lodgment, and gross Lodgment, the length of the Armies Incamping, and observing these following Rules :

First, That the four Outsides of the whole Incamping which are next to the Alarum places, be in even Lines ; for else your Alarum places would not be 300 or 206 foot wide (as you like best) in the clear ; which must regularly be observed, both for the decency, and the usefulness.

Secondly, That from the proper front of the whole Incamping, there be but one Line of Lodgments between the Alarum place, and the Generals own Lodgment.

Thirdly, That from the Alarum place next the front of the Generals own Lodgment, even till you come at it, there be a Piazza, or space of 400 foot wide, and on each side of his own Lodgment a Street of 200 foot wide , the whole length of his Lodgment , for the more State and Honour, and for the Officers and others to walk in, who resort unto him for business, or out of respect and duty ; and for his Guards to draw up in, in case of danger from the Enemy, or tumult within the Camp.

Fourthly, The Lodgments for the General Officers, and for Strangers and Volunteers of Quality, are usually to be in the same Line of the Generals own Lodgment, and on the right and left hand of it, that they may be the nearer on all

sudden occasions to be advised with, and to receive his Orders; but the General of the Artilleries Lodgment to be at one of the Angles of the whole Incamping, which is probably farthest from, and the unlikeliest to be attacked by the Enemy, for the Reasons before exprest.

Lastly, whereas the unequal Numbers of Regiments, and the various breadth of other gross Lodgments renders it impossible to make the intire Camping of the Army on the four sides of it, an exact long Square, if the breadth of every Street between gross Lodgment, and gross Lodgment, be kept to 50 foot, therefore they may be enlarged or shortned to a breadth sufficient to answer the making of the four outsides of the general incamping in right Lines, which last must never be omitted.

These are the usual Rules, and in this manner are adjusted your several Pasteboard gross Lodgments, with the Piazza, and all their Streets, on a sheet of large Paper; to which with some Mouth Glew, they may be fasten'd, so that you may be certain if it be exactly done in the Tent or Chamber, it will be exactly done in the Field; due care being taken.

But though the way of preparing the Camping of an Army, on Pasteboard, and drawing parallel Lines for gross Lodgments, and for Streets, is the most usual, and generally practised, yet I must own, I have found it so very tedious, and uncertain, that it put me upon finding out another, which whether it be in it self more expeditious, and exact, or whether my being byass'd towards a method I lighted upon, and have often practised, made me more approve of it I will not determine, but shall submit it to those whose judgments I more value than my own.

And first I shall say that what render'd the Pasteboard method tedious, and intricate, was, that since the Standard of the parallel Lines for Streets, was 50 foot in wideness, as well between gross and gross Lodgment, as between Line and Line of Lodgments, I found it, after many tryals, unpracticable, and was forced to make many Calculations. For 'tis impossible where almost every gross Lodgment differs in
the

the breadth, if the Street between every gross Lodgment be 50 foot, that ever you can keep your second, third, fourth, fifth, and sixth Line of Lodgment (if your Incamping must consist of so many Lines) equal in extent with the first; which still must be done, else your long square in the whole Incamping cannot be kept, nor consequently, the exact breadth of the four alarm places, on the four sides which are round the Camp; which would be both uniform and very incommodious.

And if the Streets between gross and gross Lodgment, be more, or less, than 50 foot wide (which 'tis impossible to avoid) then your parallel Street Lines of 50 foot wideness, are useless; and you must calculate the wideness of the Streets between most gross and gross Lodgments, and fling away your Pasteboard parallel Street Lines.

This is what on tryal will be found true, and it made me for my own ease endeavour to find out a better method; which to my satisfaction I did, and I shall set it down, as follows.

Suppose I am to incamp within a Line, an Army which consists of 17 Regiments of Foot, every one of them of different numbers, but make in all 25400 men; and of seven Regiments of Horse, every one of them of different numbers, but make in all 4900 Horse; and that I have besides 12 other gross Lodgments to be within my general Incamping *viz.* the Generals, three other General Officers, the General of the Ordnances, the Strangers, the Piazza before the Generals own Lodgment, the Sick, the Magazine, the Market-place, the Train, and the Wagons and Carriages.

The Ichnographie of which is in the ensuing Map Figure VI.

The first thing I do, is to calculate the breadth of every one of all these 36 gross Lodgments, *viz.* the 24 Regiments, and the 12 Lodgments, that are not for Regiments, but General Officers, &c. every one of which Lodgments I mark with Alphabetical Letters, to which I have reference; and to every Regiments Lodgment I set down with it the number of Troops and Companies, how many Soldiers every one consists of, and what is the exact breadth of every such Lodgment, for the length is still 300 foot.

D d 2

Secondly,

Secondly, Having sum'd up all their breadths, I allow (by way of estimate) 50 foot wideness for every Street between every gross and gross Lodgment; and 50 foot wideness for every Street between every Line of Lodgments, or 100 foot wideness for the Street, between every Line of Lodgments; (as I would do, if my Army be great, and my Camp be intended for a long time:) If my whole Incamping be to consist of six Lines of Lodgments, then there must be five Streets the whole breadth of the Incamping of 50 or 100 foot wide; all which wideness of Streets, between gross and gross Lodgment, and between Line and Line of Lodgments, I add to the breadth of the 36 gross Lodgments, which I sum up all together, and divide by six; which is the number of Lines of Lodgments I intend to make; and the Quotient shews me the breadth of every Line of Lodgments.

As for Example.

I find the breadth of all the Lodgments for my 17 Regiments of Foot, and 7 Regiments of Horse, to take up 12142 Foot.

I find my 12 other gross Lodgments (reckoning the Piazza for one) takes up in breadth 4850 foot, my five Streets between Line and Line of Lodgments, take up at 50 foot to each Street, 250 foot; and my 36 Streets between my 36 gross Lodgments at 50 foot breadth for each Street, takes 1800 foot; all these sum'd together, makes 19042 foot; which being divided by six, the Quotient is 3173, which may be the breadth of every of my six Lines of Lodgments; but in regard I leave 200 foot Street on each side of the Generals own Lodgment, and a wide Street between the next Generals Officers Lodgment on the right and left hand of the Generals, and a very wide Street on each side of the Magazine, where all the Army are to attend in course, to take out their Provisions, (as is evident in the said Map) I make still my first Line of Lodgment less in extent by some feet, than it need to be, because I may thereby make the Streets in the other Line of Lodgments wider between some gross and gross Lodgment, which otherwise I could not

not well do ; for the breadth of the first Line of Lodgments, gives the Rule to the five subsequent Lines, which must be exactly of the like extent with it.

Therefore though I might make every Line 3173 foot in extent, yet for the foregoing Reasons I make the said first Line of less extent.

I begin the first of my six Lines of Lodgments on the proper front of the whole Incamping, which usually is that which fronts towards the Enemies Countrey, or where he is likeliest to attack you ; and I begin that Line, First from the midst of it with the Piazza, which is still to be 400 foot in breadth, and to be before the Generals own Lodgment, which I alwayes place in the second Line of Lodgments ; I then lodge on the right hand of the said Piazza, the Regiment of Foot R. (which may be the Generals Regiment of Guards) and contains 16 Foot Companies, every one of 150 Soldiers, and takes up in breadth 724 foot. Then on the left hand of the said Piazza, I lodge the Regiment of Foot P. which contains 14 Companies, every one of 150 Soldiers, and takes up in breadth 644 foot. Then I leave a Street on the right hand of Regiment R. of 50 foot wide, and on the left hand of the Regiment P. of 50 foot wide, and on the right of the 50 foot Street, and on the right of Regiment R. I lodge the Foot Regiment O. which consists of 13 Companies, every one of 150 men, and takes up in breadth 604 foot ; and on the left, of the left-hand Street of 50 foot, I lodge the Regiment of Foot Q. which contains 15 Companies, each of 150 Soldiers, and takes up in breadth 684 foot ; so that the Piazza of 400 foot in the Centre, the Regiments R. and O. on the right hand with the Street of 50 foot between them, and the Regiment P. and Q. on the left hand of the Piazza, with the 50 Foot Street between them, make up in breadth for the first Line of Lodgments 3156 foot, which being 17 foot less in extent, than it might be I fix upon ; and neither more or less feet must be in every of the remaining five Lines of Lodgments.

The second Line of Lodgments, as all others, I begin in the middle of it, for by doing so, and then fixing Lodgments on the right and left hand of the said middle Lodgment, I know what is left for the two outwardmost Lodgments

ments of that Line, which else I should not be able exactly to do; and when I know that, I accordingly proportion the Regiments that are the outwardmost of the Line and the Streets breadth next to them.

As for Example.

I begin the second Line of Lodgments with the Generals own, which is in the midst of it, and is 600 foot in breadth, (for the length of 300 foot for every Lodgment whatever is still the same) then I allow alwayes 200 foot Street on each side of the Generals own Lodgment, which with the 400 foot Piazza before it, makes room for his Guards to draw up, and for all Comers and Goers to walk in, till they are dispatch'd, which is for use as well as state. On the right hand of the Generals Lodgment, and of the Street 200 foot wide, I place the Lodgment of the first General Officer B. B. which I allow to be 400 foot in breadth, and on the left side of the Generals Lodgment, and the Street 200 foot wide, I place the second General Officers Lodgment C. C. for which I allow 300 foot in breadth; then on the right of the Lodgment B. B. I leave a Street 90 foot wide, and on the right of that 90 foot Street, I place another General Officers Lodgment marked D. D. of 300 foot in breadth, and on the left of the Lodgment C. C. I leave a Street 90 foot wide, and on the left of that Street, I place the Lodgment E. E. of 300 foot wideness, for Strangers, and Volunteers of quality; the two Streets 90 foot wide apiece between B. B. and D. D. and C. C. and E. E. being between three General Officers Lodgments, and that of the Strangers of quality is for honour to them, and for the larger space for the attendance of those who belong unto them, or come for business, or respect, to wait on them.

I then find the Generals own Lodgment 600 foot, the two Streets of 200 foot in breadth on each side of it 400 foot, the four other Lodgments for three General Officers, and the Strangers, with the 90 foot Street between the two first General Officers Lodgments, amount in all in extent to 2480 foot, so that I have but 676 foot for the Lodgment of two Foot Regiments (which must be alwayes at the ends of every

every Line of Lodgments,) and for the Streets between Lodgment D. D. on the right hand, and E. E. on the left hand, I therefore place the Foot Regiment A. consisting of eight Companies, every one of 100 men, which takes up in breadth 276 foot on the right of the Lodgment D. D. and the Foot Regiment B. consisting of nine Companies, every one of 100 Soldiers, which takes up in breadth 180 foot on the left hand of the Lodgment E. E. and I find I have 188 foot left besides; which I divide into two Streets, each of 50 foot wide, and all those seven Lodgments, with the six Streets between them, make up in all in width, 3156 foot, which is the just breadth of the front Line of Lodgments, and shuts up my second Line of Lodgments, at both ends whereof I have a Foot Regiment lodged, which always ought to be in every Line of Lodgments, except in that of the General of the Ordnance, and where the Wagons are placed; for the two ends of every Line of Lodgments being next the Alarm place, must still have Foot lodged there, to be at hand to defend the Line and Fortifications which shuts up, and flanks the whole Incamping.

I begin my third Line as the first and second from the midst, or centre of it; first I lodge there the Regiment of Horse Z. which consists of 10 Troops, every one of 100 Soldiers, and takes up in breadth 808 foot; on the right of Regiment Z. I leave a Street of 50 foot wide; and on the right of that Street I place the Regiment of Horse Y. which consists of nine Troops, every one of 100 Soldiers, and takes up in breadth 738 foot; then on the left hand of Regiment Z, I leave also a Street of 50 foot wide, and on the left of that Street I lodge the Regiment of Horse X. which consists of eight Troops, every one of 100 Soldiers, and takes up in breadth 668 foot. I then find that the three Regiments of Horse Z. Y. X. with the Street 50 foot wide between the Regiment Z. and Regiment Y. and between Regiment Z. and Regiment X. with the Street 50 foot wide between them, takes up in breadth 2314 foot; whereby I have left to complete that third Line of Lodgments but 842 foot, within which I must lodge two Foot Regiments, with their Streets between Regiment Y. on the right, and Regiment X. on the left, I do therefore on the
right

right hand end of the third Line of Lodgments, place the Foot Regiment D. consisting of 11 Companies, every one of 100 Foot Soldiers, and takes up in breadth 348 foot; and on the left hand end of the Line, the Foot Regiment E. consisting of 12 Companies, every one of 100 Soldiers, which takes up in breadth 372 foot; and I find 122 foot left, which I divide into two Streets, each of 61 foot wide-ness, and all these five Lodgments with the four Streets between, are 3156 foot wide, which is the due extent of the third Line.

I then proceed to the fourth Line of Lodgments, and begin at, or near the midst or centre of it, when I cannot exactly do it there, with the Lodgment L. L. which is the place for the Market, and contains 400 foot in wide-ness, I then leave a Street 50 foot wide on the right of L. L. and place the Regiment of Horse W. which consists of seven Troops, every one of 100 Soldiers, and takes up in breadth 598 foot; then I leave a Street of 50 foot wide on the left of L. L. and place on the left of that Street, the Regiment of Horse V. which consists of six Troops, every one of 100 Soldiers, and takes up in breadth 528 foot. Then I place in the right of the Regiment of Horse W. the Regiment of Foot N. which consists of 12 Companies, every one of 150 Soldiers, and takes up in breadth 564 foot, with a Street of 46 foot wide between the Regiment of Foot N. and the Regiment of Horse W. which shuts up the right end of the fourth Line of Lodgments, and then on the left of the Horse Regiment V. I leave a Street of 50 foot wide, and place the Lodgment G. G. which is 300 foot wide, for the sick; when this is done, I find I have left to close the left end of the said fourth Line of Lodgment, but 570 foot, I therefore lodge at the left end of that fourth Line the Foot Regiment M. which consists of 11 Companies, every one of 150 Soldiers, and takes up in breadth 524 foot, and so rests 46 foot for the wide-ness of the Street between Lodgment G. G. and Foot Regiment M. all which six Lodgments with the five Streets between them, takes up in breadth 3156 foot, which is exactly the due breadth of the fourth Line of Lodgments.

I then

I then proceed to the 5th Line of Lodgments, and begin about the middle, where I cannot exactly do it at the middle with the Lodgment K. K. which is the Magazine for the Victuals, and contains in breadth 500 foot, on the right I leave a street 136 foot wide, and on the right of that street, I place the Regiment of Horse S. which consists of four Troops, every one of which is 100 Soldiers, the breadth whereof is 388 foot; and on the left of the Lodgment K. K. I leave a street of 136 foot wide, and on the left of that street I place the Horse Regiment T. consisting of five Troops, every one of 100 Soldiers, and contains in breadth 458 foot; so that all my Cavalry I place in the midst of the General Incamping, that the Infantry may be still lodged nearest the Alarum places, and Works; then on the right of the Regiment I leave a street of 50 foot wide, and on the right of that street I place the Foot Regiment I, which consists of eight Companies, every one of 150 Soldiers, and takes in breadth 404 Foot; all which four Lodgments with the three streets between them, I find takes up in breadth 2072 Foot, whereby I have left to my fifth Line of Lodgments but 1084 Foot, and therefore proportion the two remaining Gross Lodgments, with the streets between them, accordingly. To complete that Line of Lodgments, I leave therefore on the right of the Regiment I. a 50 Foot street, and at the right of it I place the Lodgment L. I. which is for the Wagons, and Carriages, which takes up 500 Foot in breadth, and shuts up the right end of my 5th Line of Lodgments, where I choose to place the Carriages, because 'tis next the Alarum place, that those bulky Carriages may never come within the 50 Foot streets, lest it might incommode all the Lodgments in them.

Then on the left of the Regiment T. I leave a street of 50 Foot wide, and on the left of it I lodge the Regiment of Foot L, which consists of 10 Companies, every one of 150 Soldiers, and takes up in breadth 484 Foot, which shuts up the left end of my 5th Line of Lodgments, all which six Gross Lodgments placed in it, with the five streets between, takes up in breadth 3156 Foot, which is the exact breadth of that Line.

I then proceed to my sixth, and last Line of Lodgments,

in which I must place the seven remaining Gross Lodgments, of my 36 Lodgments, and I begin in the midst of it, by placing the Foot Regiment H. which consists of 15 Companies, every one of 100 Soldiers, and takes up in breadth 444 Foot; on the right of the Regiment H. I leave a street 50 Foot wide, and on the right of that street I lodge the Foot Regiment K. consisting of nine Companies, every one of 150 Soldiers, which takes up in breadth 444 Foot, and on the left of Regiment H. I leave a street of 50 Foot wide, and on the left of that street I lodge the Regiment of Foot G. which consists of 14 Companies, every one of 100 Soldiers, and takes in breadth 420 Foot; then on the right of the Regiment K. I leave a street of 49 Foot wide, and on the right thereof I place the Lodgment H. H. which is for the Artillery, and contains in breadth 400 Foot; then in the left of the Regiment G. I leave a street 49 Foot wide, and on the left of it I place the Foot Regiment F. which consists of 12 Companies, every one of 100 Soldiers, which takes in breadth 396 Foot; all which five Lodgments, with the four streets between them, take up 2302 Foot in breadth; so that there remains but 854 Foot, to complete the 6th Line of Lodgments, and I have two Gross Lodgments to place in it with the streets, between them one of those Gross Lodgments, is the General of the Ordnances F. F. which takes in breadth 450 Foot; with which I close the left end of my 6th Line, for the Reasons formerly mention'd; and the other Gross Lodgment is the Foot Regiment C. which consists of 10 Companies, every one of 100 Soldiers, and takes up in breadth 324 Foot; so that I have but 80 Foot left for the two streets between Lodgment H. H. and F. F. and Lodgment F. and C. which therefore I divide equally into two Forty Foot wide streets; all which seven Lodgments, with the six streets between them, take up in breadth 3156 Foot, which is the exact breadth that my 6th and last Line of Lodgments ought to consist of; so that your intire Camping of an Army which has 36 such Gross Lodgments, and contains 25400 Foot, 4900 Horse, with all the Lodgments for the General, General Officers Train, Wagons, Piazza, for Strangers, for the Sick, for the Magazine, and for the Market-place, takes up in breadth 3156 Foot,

Foot, and in depth 2050 Foot. As I place a Lodgment in any Line of Lodgments, I strike it out of the List of Lodgments, that thereby I may see what is placed, and what is to be placed; else it would bring things into disorder.

When I have resolved what the Extent of the first Line of Lodgments shall be (which must be alwayes less wide, than it might be (for the Reasons beforementioned) then I see how many Gross Lodgments may be in every Line of Lodgments, and how much in all is left for the streets between Gross and Gross Lodgment, and proportion the breadth of my streets accordingly; but I never have any such street less than 40 Foot wide. All this I draw up first without a Scale, but set down the breadth of every Lodgment in the Lodgment, and the breadth of every street between Lodgment and Lodgment; and when I have thus roughly done all my Lines of Lodgments and their streets, and find every Line of Lodgments punctually answer the breadth of the first Line of Lodgments, then I do it exactly by a Scale, which is finish'd in an hour, and then cutting them out in Pasteboard, or Paper-Royal, I write in the square of every Lodgment, what Lodgments are in every Line of Lodgments, what wideness of streets is between every Lodgment in every Line, and what Lodgment or Vacuity on the right, and left hand, is next to every Lodgment, in every Line of Lodgments; and then by Mouth-Glew, or Pasting, I fix them in a sheet of Paper, which makes the Map or Figure of the whole Incamping; and may forthwith be unpasted, or unglew'd by the Quartermaster General, and distributed accordingly; or which is much better, he may keep the said Map, and give to every Lodgment in Paper the quantity of Feet in breadth that it is to have, in what Line of Lodgments it is to be in, and in what part of it; who, or what is on the right, and left hand of it, and the wideness of the street on each hand of it, whereby when every Lodgment is thus particularly set down, there can hardly be any Error in the laying it out, unless by gross Negligence, or Wilfulness; either of which must never scape unpunish'd in those who are guilty of it.

This is one of the wayes I usually practise.

Another

Another way is thus, which I think is briefer, and as certain

I cast up the whole breadth of all the Lodgments and Streets as before, and divide it by six, because I resolve to have six Lines of Lodgments; then I resolve my first Line of Lodgments shall be of less Extent than it may be, for the Reasons before set down.

Then I find I may place the Piazza of 400 Foot wide, and the four largest Regiments of Foot R. O. P. Q. in the Front Line, which four Regiments with the Piazza I find take up in Extent but 3056 Foot, and then I have but 100 Foot left, which I divide into two Streets of 50 Foot each, between Regiment R. and O. on the right of the Piazza; and between P. and Q. on the left hand of it, and all those five Lodgments, with the two Streets, take up in Extent 3156 Foot; which being 17 Foot less than I might make the first Line of Lodgments to consist of, I fix on it and write it down.

In the second Line of Lodgment, where I always place the Generals Lodgment in the Centre, (that the Piazza on the first Line, may be before it) and the other three General Officers, and the Strangers, and unregimented Volunteers of Quality, and two Regiments of Foot, one to close each end of that Line, I find those seven Lodgments take up in breadth 2476 Foot, *viz.* Lodgment A. A. 600 Foot, Lodgment B. B. 400 Foot, Lodgment C. C. 300 Foot, Lodgment D. D. 300 Foot, Lodgment E. E. 300 Foot, Lodgment of the Foot Regiment A. 276 Foot, Lodgment of the Foot Regiment B. 300 Foot; And then I have left to complete my second Line of Lodgments but 680 Foot, which are for the six Streets, between the said seven Lodgments; I therefore give thereof 200 Foot Street on each side of the Generals Lodgment, and 50 Foot Street between the four other Lodgments, all which making but 600 Foot, I add to the Streets between the two Lodgments of the next chief General Officers on the right hand of the Generals Street of 200 Foot, 40 Foot, and on the left hand of the General Officers and the Strangers Lodgments, next the 200 Foot Street of the Generals own Lodgment, 40 Foot more, which makes those two Streets 90 Foot wide each, and compleats

pleats the Extent of my second Line of Lodgments 3156 Foot.

I find the three Regiments of Horse Z. Y. X in the third Line of Lodgments, and the Foot Regiment D. to close it at the right end, and the Foot Regiment E. to close it at the left end, take up in breadth, 2934 Foot, viz. Regiment of Horse Z. 808 Foot; Regiment of Horse Y. 738 Foot; Regiment of Horse X. 668 Foot; Regiment of Foot D. 348 Foot; Regiment of Foot E. 372 Foot; so that there remains but 222 Foot for the four Streets between the said five Lodgments, which at 50 Foot to a Street is but 200 Foot; therefore I add the 22 Foot remaining to the Street between the Regiment of Horse Y. and the Regiment of Foot D. and between the Regiment of Horse X. and the Regiment of Foot E. which two Streets being 61 Foot wide each of them, makes my third Line of Lodgment also exactly 3156 Foot in Extent.

I find in my 4th Line of Lodgments I must place six Gross Lodgments, and therefore choose those to consist of the Lodgments for the Regiments of Horse V. and W. and between them near the midst of the Line, the Market-place L. I. for the equal coming to it from all parts, (always observing where the number of Lodgments, in a Line are even, to begin as near the midst of it as I can; since I cannot in such case begin at the very midst, which I may still do where the Number of Lodgments are odd :) the second Lodgment on the left from the Market-place, is G. G. for the Sick; I then close my 4th Line at the right end, with the Foot Regiment N. and at the left end with the Foot Regiment M. all which Lodgments take up in breadth 2914 Foot, viz. Regiment of Foot M. 524 Foot; Lodgment for the Sick G. G. 300 Foot; Lodgment for the Regiment of Horse V. 528 Foot; Market-place 400 Foot; Lodgment for the Regiment of Horse W. 598 Foot, and Lodgment for the Regiment of Foot N. 564 Foot; so that I have left for the five Streets between the said six Lodgments, but 242 Foot, which I divide thus; 50 Foot to every of the three innermost Streets, and but 46 Foot to the two outwardmost Streets: all which makes up the exact Number of 3156 Foot, which is the due Extent of the 4th Line of Lodgments.

G g

I find

I find then that I have 13 Gross Lodgments to be placed in my remaining 5th and 6th Lines of Lodgments, to complete the 36 Gross Lodgments in the whole. I therefore place in the 5th Line these six Gross Lodgments, near the midst of it the Magazine of Victuals K. K. on the right of the Magazine, the Regiment of Horse S. on the left of it, the Regiment of Horse T; on the right of the Horse Regiment S. the Foot Regiment I. and then on the right of that Regiment, to close my Line on the right hand of the Lodgment I. I. for the Wagons, Carts, &c. (for the reason beforementioned) then on the left hand of the Horse Regiment T. I close the Line on that hand, with the Foot Regiment L. all which six Gross Lodgments take up in breadth 2734 Foot, viz. Regiment of Foot L. 484 Foot; Regiment of Horse T. 458; K. K. place for the Magazine of Victuals, 500 Foot, Regiment of Horse S. 388 Foot, Regiment of Foot I. 404 Foot, place for the Wagons, Carts, &c. 500 Foot; so that there remains 422 Foot to be divided into five Streets, between the said six Gross Lodgments; I therefore allow 50 Foot to each of the two Streets on the right of the Magazine for Victuals, and 50 Foot for the one Street on the left hand of the said Magazine between the Regiment of Horse T. and the Regiment of Foot L. which closes the left end of the Line, and I allow 136 Foot for each of the Streets on the right and left of the said Magazine K. K. because of the constant resort of the Carriages to it, and of the crowd of the Soldiery which come to receive Provisions for Man and Horse-meat; as also that if Fire should happen, the more hands may come to quench it: All which six Lodgments, and the five Streets between them, make up in all 3156 Foot in breadth, which is the due Extent of my 5th Line of Lodgments.

In my sixth and last Line I must place seven Gross Lodgments, viz. in the midst of it the Regiment of Foot H. the three other Lodgments on the right of Regiment H. I place the Foot Regiment K. next to it the Lodgment H. H. for the Artillery, and next to it the Lodgment F. F. for the General of the Artillery, the Powder, and the Fireworks, with which I close the right end of that Line (for the Reasons before set down) and then on the left of the Foot Regiment

ment H. I place the other three Gross Lodgments, that of the Foot Regiment G. next on the left of Regiment H. next on the left of Regiment G. the Foot Regiment F. and next on the left of it the Foot Regiment C. with which I close the Line on the left end: All which seven Gross Lodgments take up in all 2878 Foot, *viz.* Regiment of Foot C. 324. Regiment of Foot F. 396 Foot, Regiment of Foot G. 420 Foot. Regiment of Foot H. 444. Regiment of Foot K. 444. Lodgment for the Artillery H. H. 400 Foot, Lodgment for the General of the Ordnance, Powder, and Fireworks F. F. 450 Foot; so that there remains but 278 Foot for the six streets, between the said seven Gross Lodgments, which I thus divide; 50 Foot to each Street on the right and left of Regiment of Foot H. 40 Foot for each Street, between Regiment K. and Lodgment H. H. and between Regiment G. and Regiment F. and 40 Foot for each Street between Lodgment H. H. and Regiment F. F. and between Foot Regiment F. and Foot Regiment C. all which makes 3156 Foot, which is the due Extent of my sixth and last Line of Lodgments, and exactly compleats the long square of the intire Lodgment of the 38 Gross Lodgments.

Either of these two ways before set down may be practised, but I still find the latter more expeditious, and therefore make ofttest use of it.

Though the Figure Number VI. does consist of six Lines of Lodgments, yet according to the nature, advantage, or disadvantages of the Ground your standing Camp is to be in; you may make your Camp consist of more or fewer Lines, as you find it most advantageous.

As for Example.

If I am limited to a certain Ground for my standing Camp, by reason that it is to command some beneficial Pass, or that it is to bridle a considerable City, or Town, where your Enemy has his Arcenals, Magazines, or Bridges, over some Navigable River; and that by so placing my standing Camp before his Army is Rendezvouz'd in or near that City or Town, I may make it of little use to him as to his invading

ding the Countrey I am to defend; for if I am posted so near it, as that he cannot imbatle his Army but under the reach of my Artillery, or march his Squadrons and Battalions over his Bridges, but so as I may attack as many of them as I think fit, and which are come over, while the rest are on the other side, or marching to those which are got over; I say, if in these two Cases, or in other the like Cases, I am limited to a set proportion of Ground to incamp in, I will make the length and depth of my Lines of Lodgments accordingly: As for instance, if by making my standing Camp to consist but of four Lines of Lodgments, I thereby get some Eminences of Ground within my Camp, which if I made it consist of five or six Lines, I should be necessitated to leave out, and consequently must secure such heighths, by making Forts on the top of them, and Lines about the foot of them, which will be a prejudice to me if done; and by the Enemies possessing them, a disadvantage to me if not done, I would make the Number of my Lodgment Lines but four; and on the other side, if the Ground for my standing Camp be such, that if I should make but four or five Lines of Lodgments, I should thereby inclose within my Camp, or border upon it, some Moorish Lands, I would make it consist of 6 or 7 Lines of Lodgments, to avoid that mischief.

These two Instances will evidence no standing Rule can be given of how many Lines of Lodgments the settled Incamping shall consist; for that must still depend upon the judgment of the General, and nature of the Ground; wherefore the *Romans* manner of making their standing Camps alwayes an exact Square, and the usual modern way of making it a long Square, may neither of them be alwayes the best.

After the Ground for the standing Camp is resolved on, and that in Pasteboard or Double Paper, the Lodgments are agreed upon with how many Lines of Lodgments deep the whole shall consist of, it is the duty of the Quartermaster General, and of the Engineer General, to wait on the General with it, who approving of it, the Quartermaster General with his Assistants, and the Quartermasters of every Foot Regiment, and of every Troop of Horse, with those appointed

appointed to take care of the Lodgments, for the General Officers, the Train, the Strangers, the Sick, and the Market place (if you will have it within the Intrenchment) are to receive from him respectively, their Number of Foot in breadth, (for the length never alters) which every one of their Lodgments is to consist of, and also in what Line of Lodgments, and who is, or what is next on their right, or left hand, to be lodged or left void, with the breadth of the Street on each side of the Lodgment, when it varies from the usual wideness of 50 Foot, and then the four Angles of the whole Camp, and afterwards of every Lodgment are to be staked out, with the Streets, which are to run the whole breadth of the Camp, as also between Gross Lodgments and Gross Lodgment; after which, every Gross Lodgment is to be gone upon, by those appointed to work on the Hutts, and the Breast-work, which is to environ every Gross Lodgment, yet so as no hands must be diverted, of the Foot Regiments from intrenching the whole Army, for that of all things, must be the very first gone about, and finished; then the Engineer General leaving the 300 or 206 Foot wideness for the Alarum place, round the whole Incamping, is to shew the General in Paper, his Project for fortifying the Camp, with the several sorts of Works which are to defend it, and flank the Line; alwayes having the largest Bastions, or Forts, on the four Angles of the whole Intrenchment, and the most capacious Works on the rising st Grounds; to plant the most Ordnance on, the better to command the Fields without the Camp, and with Grass and Rampards, the deeper and the broader, to those larger Works; all things being seen by the General, and agreed unto by him, the Engineer General with his Assistants, is immediately to put them in practice.

And first he is to stake out the Alarum place, which is to be the 300 or 206 Foot in wideness, between the Circumvallation Line, and the Lodgments of the whole Camp; then to stake out the four Lines of the whole Circumvallation of it, erecting long Poles with Streamers on them, at the four right Angles of them; then to turn up one Sod all along the said Lines, for the better direction of those, who are to raise the Parapet, the whole length of it; leaving the Gaps

H h

which

which are to be at the Entrance or Gorge of every Work or Bastion, which is to flank and defend it.

Next to stake out and mark the Fortifications, which are to secure the Camp, with their Grafs, and the distance between the undermost inward Sods of the Parapet, and Ramparts, and the outwardmost nearest the Graff; then he is to sum up how many Feet invirons the whole Line, which shuts up the Camp, together with the several Works which are to defend it round; afterwards he is to cast up how much in proportion to the just number of the whole Infantry of the Army, every Regiment is to do of all those Works and Lines, and to appoint every one of them the part they are to perform, which he is afterwards to stake out to their Officers, that every Regiment may know its proper task, and where it begins and ends, and then they are without delay to fall to their Work, and never cease till it be finished.

This apportionating to every Regiment of Foot, its equal share of the whole Work, is done by the Rule of Three, and when thereby the exact share of Regiment A. is found, the like must be done as to every other Regiment, till all of them be gone thorow. In what is already express, I take it for granted, that the Works to flank the Line as well as the Line it self, are only in effect Parapets, and that may serve for a short time of Incamping, or when you are certain the Enemies Army cannot attack yours; but if it be for a standing Camp, and in which you will secure your self against his Attempts; then all your Works which flank your Line, ought to be fill'd with Earth, to the height you judge needful, and from that height to erect your Parapets, which may be Cannon-proof, with Portholes, or with great Cannon Gabions well fill'd with Earth, or Skite Gates thorow the Flanks and Faces of the said Works; and in such cases, the usual method is to have your Pioneers or hired Soldiers, or both, to do those extraordinary labours; and this must be resolved upon at your first Incamping; since it will be too late to go upon it afterwards, because when your Bastions and other Works, to defend the Line, are only thin Parapets, made 6 foot high, both the casting the earth over those Parapets, to fill the Vacuities will be of hard labour, and al-

so the Sod Work too weak to keep in the burden of new Earth, which by the great weight of it may belly and slide, and all Works which have Rampards, ought to have the Earth fill'd, but as the Sod-work rises, both that the casting in of the Earth may be the easier done, and that it may have the more time to settle as the Work rises.

Besides if your intire Line, and the Work which scours it, is only to be six Foot high, and but six Foot thick at the bottom, and three at the top, the Sod-work which faces and lines it, is usually but one Sod thick, which is sufficient to keep in the Earth between, giving it so much battering; but if you come to fill the Vacuities of your flanking Works with Earth, then you ought to lay double, sometimes treble Rows of Sods, and those well ram'd, to face and line your Works; also good store of Frith must be mingled amongst the Earth, which fills the Vacuities; both which will bind it so, as it shall not be apt to slide.

This Caution I esteem'd not amiss to set down.

The Ichnographie of an Army Incamp'd, is in the following Figure Number VI. with a Table annexed, as also a Prospect, how a Line may be fortified, and secured.

When

When the whole Circumvallation of the Camp is intirely finished, for that must be the first Work of all, the general safety depending on it, the General of the Ordnance, and his Officers, and others belonging to the Train of Artillery, must mount their Cannon or Field-pieces, on the several Works which are to command the Countrey about the Camp, and to defend the Line which invirons it; and to have them loaden with Round or Case-shot, and a sufficient quantity, of Ball and Powder, and number of Gunners and Matrosses; constantly to attend the Service. If your Camp be designed for a standing one, and that you apprehend an Enemy will straiten you in it, because you are too weak to give him Battel; then I would also raise some *Cavaliers*, or mounts of Earth, of a reasonable heighth, and plant the longest Ordnance on them, the more to command the Fields; these *Cavaliers* I would raise on the most advantageous places in the Bullwarks, at the Angles, and in the Works which environ the whole Camp.

Whil'st these things are doing, the Quartermaster General and his Officers, ought to distribute to the General Officers, and those of the Train, as also to the Colonels of Horse, Foot, and Dragoons, &c. the quantities, dimensions and places, where their several Lodgments respectively are to be; the boundaries or outmost Lines of every one, being forthwith to be staked out; at the four Angles of every Gross Lodgment respectively, and on those Stakes, small Streamers of Taffaty, or other slight Stuff, are to be placed; and of the colour of the respective Regiments, or General Officers, to the end that all of every Lodgment, by those small Streamers may know, where they are to lodge, and how much ground is allotted for it; then the Quartermasters of the Regiments, and of the Troops, with those appointed for the Lodgment of the General, and others, unregimented Officers, are immediately to fall to work, in dividing their Lodgments, and in making their Hutts and Stalls, the Quartermasters of Troops with their Corporals, and the Sergeants of Foot with their Corporals, are to see the Hutts and Stalls finish'd, for the Lodgments of their respective Troops and Companies, and the due regularity in hutting or pitching their Tents, punctually observed; according

The numbers which are set down in the
 several columns are the numbers of feet
 contained in the breadth of each Lodgment

and of the breadth of these Lodgments

4850 feet

Plaza before the General's Lodgment breadth

There for the Market breadth

Lodgment for the Magazine of victuals breadth

Lodgment for the Magazine of arms &c breadth

Lodgment for the Artillery breadth

Lodgment for the Ordnance breadth

Surgeons Lodgment breadth

One other General Officer's Lodgment breadth

One other General's Lodgment breadth

Lodgment for the sick breadth

Lodgment for the 3 Lodgments

4850 feet

800 feet of a sick Troop's breadth

600 feet of a sick Troop's breadth

400 feet of a sick Troop's breadth

200 feet of a sick Troop's breadth

100 feet of a sick Troop's breadth

800 feet of a sick Troop's breadth

600 feet of a sick Troop's breadth

400 feet of a sick Troop's breadth

200 feet of a sick Troop's breadth

100 feet of a sick Troop's breadth

800 feet of a sick Troop's breadth

600 feet of a sick Troop's breadth

400 feet of a sick Troop's breadth

200 feet of a sick Troop's breadth

100 feet of a sick Troop's breadth

800 feet of a sick Troop's breadth

600 feet of a sick Troop's breadth

400 feet of a sick Troop's breadth

200 feet of a sick Troop's breadth

100 feet of a sick Troop's breadth

800 feet of a sick Troop's breadth

600 feet of a sick Troop's breadth

400 feet of a sick Troop's breadth

200 feet of a sick Troop's breadth

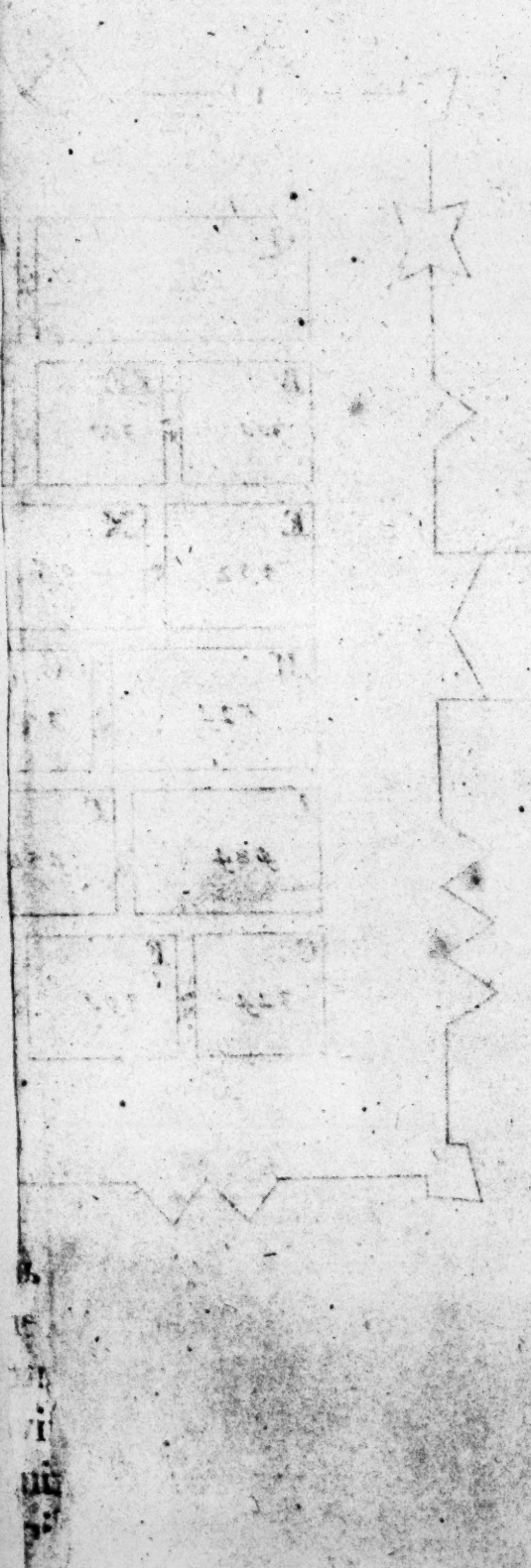
100 feet of a sick Troop's breadth

800 feet of a sick Troop's breadth

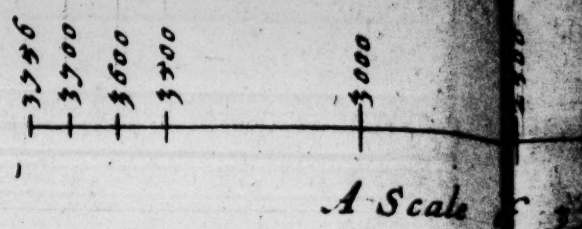
600 feet of a sick Troop's breadth

400 feet of a sick Troop's breadth

This is the Lodgment of
 of those which make up
 The General's Lodgment
 for the sick



A Foot Regim ^t of 8 Comp ^s every one 100 men breadth of its Lodgm ^t	276	feet
B Foot Regim ^t of 9 such Companies breadth	300	
C Foot Regim ^t of 10 such Comp ^s breadth	324	
D Foot Regim ^t of 11 such Comp ^s breadth	348	
E Foot Reg ^t of 12 such Comp ^s breadth	372	
F Foot Reg ^t of 13 such Comp ^s breadth	396	
G Foot Reg ^t of 14 such Comp ^s breadth	420	
H Foot Reg ^t of 15 such Comp ^s breadth	444	
Souldiers 9200 Breadth of Lodgm ^t	2880	foot



I Foot Reg ^t of 8 Comp ^s every one 150 men breadth	404
J Foot Reg ^t of 9 such Comp ^s breadth	444
K Foot Reg ^t of 10 such Comp ^s breadth	484
L Foot Reg ^t of 11 such Comp ^s breadth	524
M Foot Reg ^t of 12 such Comp ^s breadth	564
N Foot Reg ^t of 13 such Comp ^s breadth	604
O Foot Reg ^t of 14 such Comp ^s breadth	644
P Foot Reg ^t of 15 such Comp ^s breadth	684
Q Foot Reg ^t of 16 such Comp ^s breadth	724

Souldiers of these 9 Reg^t 16200 Breadth of the Lodgm^t 5076 foot

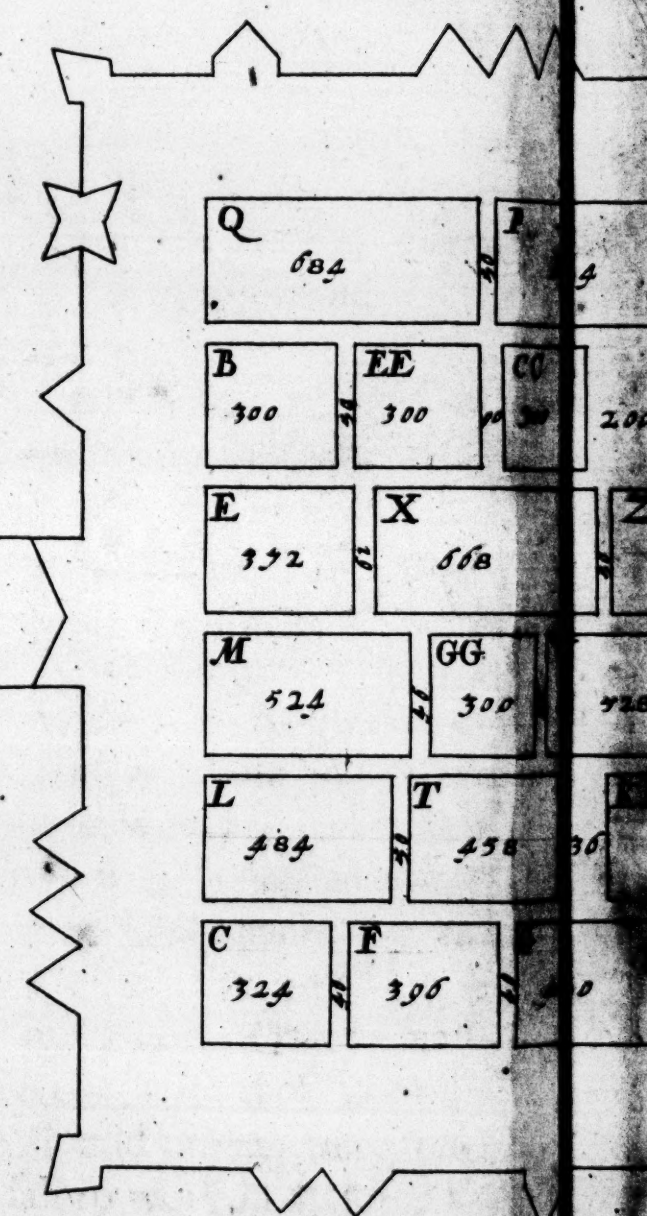
R Horse Reg ^t of 4 Troopes each 100 men breadth	388
S Horse Reg ^t of 5 such Troops breadth	458
T Horse Reg ^t of 6 such Troops breadth	528
U Horse Reg ^t of 7 such Troops breadth	598
V Horse Reg ^t of 8 such Troops breadth	668
W Horse Reg ^t of 9 such Troops breadth	738
X Horse Reg ^t of 10 such Troops breadth	808

Horse 4900 Breadth of the 7 Lodgem^t 4186 foot

A Generalls owne Lodgm ^t breadth	600
B One Officer Generall Lodgm ^t breadth	400
C One other Generall Officer Lodgm ^t breadth	300
D One other Gen ^l Officer Lodgm ^t breadth	300
E Strangers Lodgment breadth	300
F Generall of y ^e Ordnance Lodgm ^t breadth	450
G Lodgm ^t for y ^e sick breadth	300
H Lodgm ^t for y ^e Artillerye breadth	400
I Lodgm ^t for y ^e Waggon Cart &c breadth	500
J Lodgm ^t for y ^e Magazine of Victuall breadth	500
K Place for y ^e Markett breadth	400
L Piazza before y ^e Generalls Lodgm ^t breadth	400

all of y^e breadth of these 12 Lodgements 4830 foot

The Numbers which are sett down in the
Generall Lodgem^t are the Numbers of feet
contained in y^e breadth of each Lodgem^t

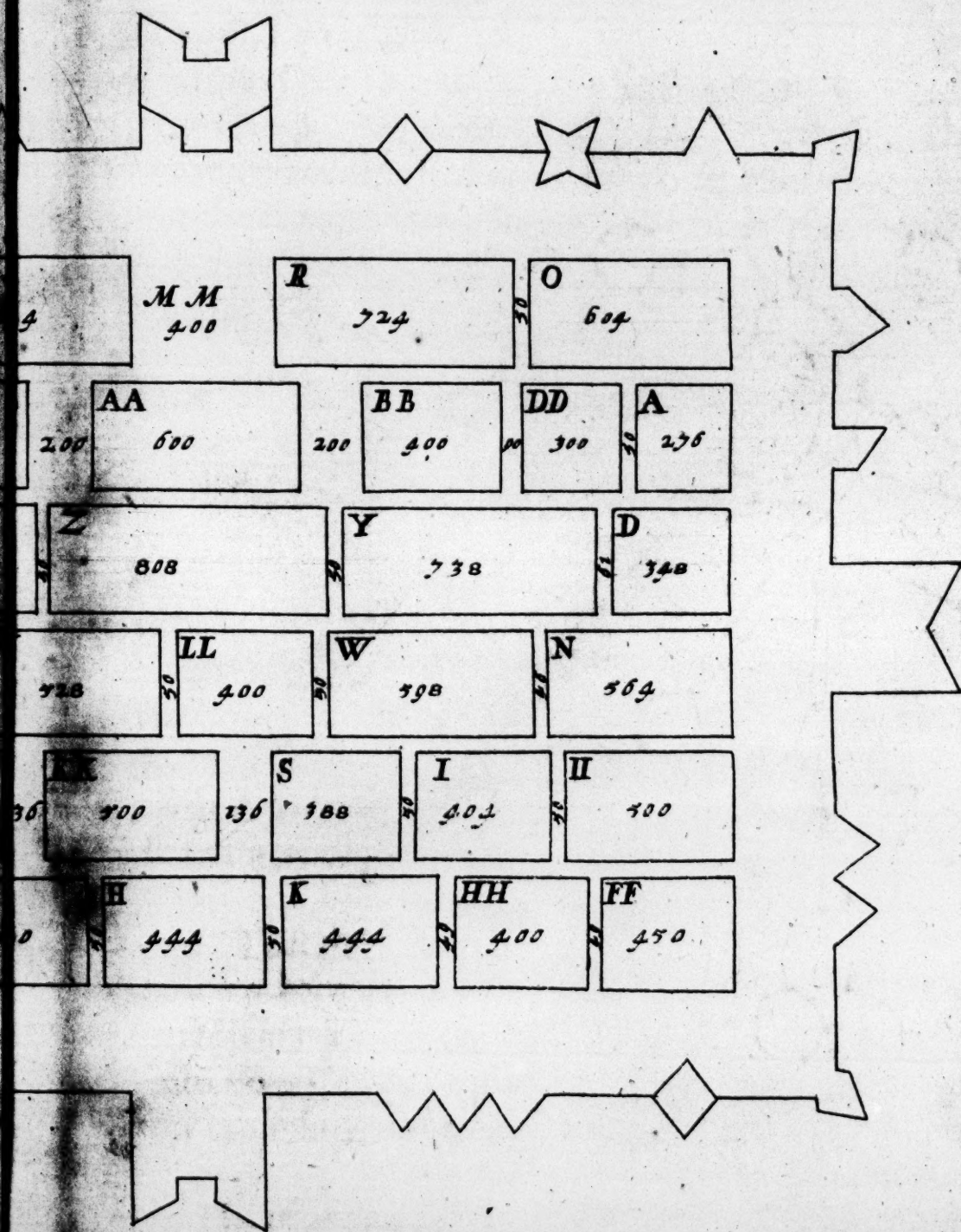


This is the Lodgement of an Army
of Horse which make in all 4900 men
The Generalls Lodgement 300
for Strangers, for the sick 300



3726 foot Long

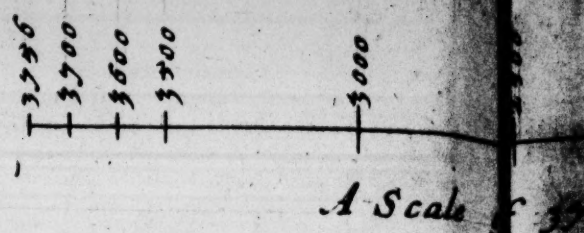
Figure Six



by six Lines of Lodgements the whole Consisting 7 Regiments
 and 17 Regts of foot which make in all 23400
 1000 Gen^l Gen^l of the Ordnance Traine Waggons Piazza Lodgements
 Magazines and Market place

Place this foll: 120

A Foot Regim ^t of 8 Comp ^s every one 100 men breadth of its Lodgm ^t	276	feet
B Foot Regim ^t of 9 such Companies breadth	300	
C Foot Regim ^t of 10 such Comp ^s breadth	324	
D Foot Regim ^t of 11 such Comp ^s breadth	348	
E Foot Reg ^t of 12 such Comp ^s breadth	372	
F Foot Reg ^t of 13 such Comp ^s breadth	396	
G Foot Reg ^t of 14 such Comp ^s breadth	420	
H Foot Reg ^t of 15 such Comp ^s breadth	444	
Souldiers 9200 Breadth of Lodgm ^t	2880	foot



I Foot Reg ^t of 8 Comp ^s every one 150 men breadth	404
J Foot Reg ^t of 9 such Comp ^s breadth	444
K Foot Reg ^t of 10 such Comp ^s breadth	484
L Foot Reg ^t of 11 such Comp ^s breadth	524
M Foot Reg ^t of 12 such Comp ^s breadth	564
N Foot Reg ^t of 13 such Comp ^s breadth	604
O Foot Reg ^t of 14 such Comp ^s breadth	644
P Foot Reg ^t of 15 such Comp ^s breadth	684
Q Foot Reg ^t of 16 such Comp ^s breadth	724

Souldiers of these 9 Reg^t 16200 Breadth of the Lodgm^t 3076 foot

R Horse Reg ^t of 4 Troopes each 100 men breadth	388
S Horse Reg ^t of 5 such Troops breadth	458
T Horse Reg ^t of 6 such Troops	
U Horse Reg ^t of 7 such Troops	
V Horse Reg ^t of 8 such Troops	
W Horse Reg ^t of 9 such Troops	
X Horse Reg ^t of 10 such Troops	

Horse 4900 Breadth of the 7

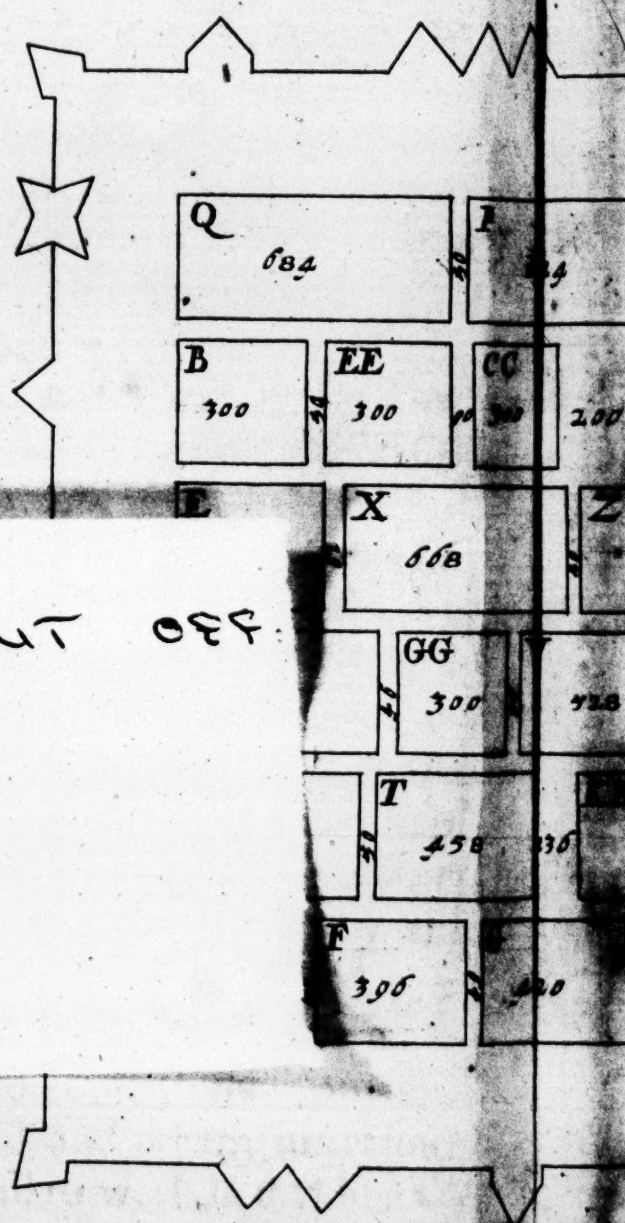
A Generalls owne Lodgm^t bre
 B One Officer Generall Lodgm^t
 C One other Generall Officer

D One other Gen ^{ll} Officer Lodgm ^t	
E Strangers Lodgment breadth	300
F Generall of y ^e Ordnance Lodgm ^t breadth	450
G Lodgm ^t for y ^e sick breadth	300
H Lodgm ^t for y ^e Artillerye breadth	400
I Lodgm ^t for y ^e Waggonis Caris &c breadth	500
J Lodgm ^t for y ^e Magazine of Victuall breadth	500
K Place for y ^e Markett breadth	400
L Piazza before y ^e Generalls Lodgm ^t breadth	400

all of y^e breadth of these 12 Lodgements 4830 foot

The Numbers which are sett down in the
 Generall Lodgm^t are the Numbers of feet
 contained in y^e breadth of each Lodgm^t

PRINT CUT OFF

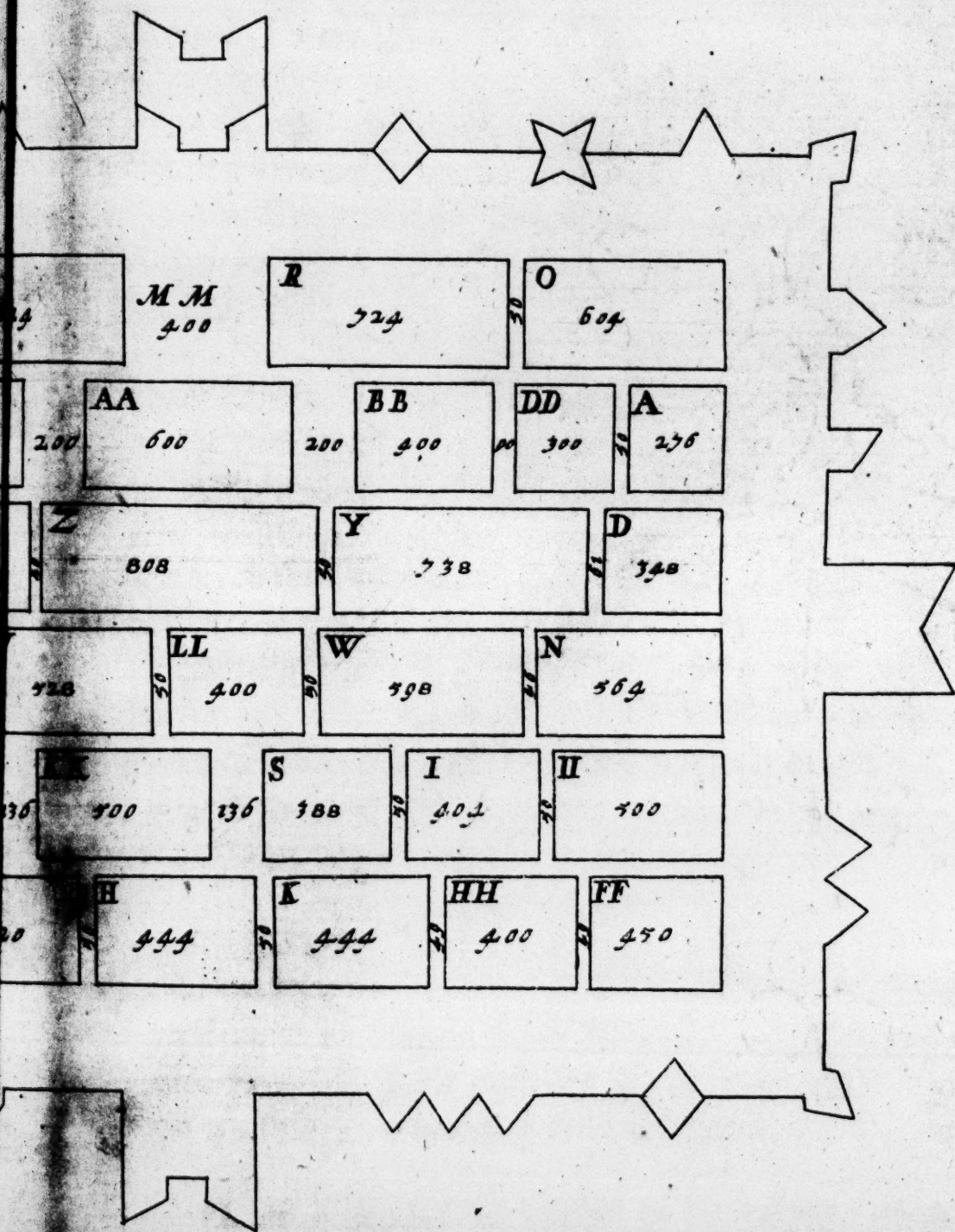


This is the Lodgement of an Army
 of Horse which make in all 4900 men
 The Generalls Lodgement, Officers
 for Strangers, for the sick, for Magaz



6 foot Long

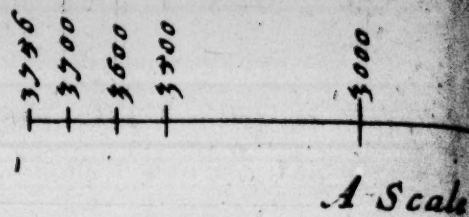
Figure Six



in Six Lines of Lodgements the whole Consisting 7 Regiments
 and 17 Regiments of Foot which make in all 25400
 men Gen^l Gen^l of the Ordnance Traine Waggon Piazza Lodgements
 and Market place

Place this foll: 20

A Foot Regim ^t of 8 Comp ^s every one 100 men bredth of w ^r Lodgm ^t	276	feet
B Foot Regim ^t of 9 such Companies breadth	300	
C Foot Regim ^t of 10 such Comp ^s breadth	324	
D Foot Regim ^t of 11 such Comp ^s breadth	348	
E Foot Reg ^t of 12 such Comp ^s breadth	372	
F Foot Reg ^t of 13 such Comp ^s breadth	396	
G Foot Reg ^t of 14 such Comp ^s breadth	420	
H Foot Reg ^t of 15 such Comp ^s breadth	444	
Souldiers 9200 Breadth of Lodgm ^t	2880	foot



I Foot Reg ^t of 8 Comp ^s every one 150 men bredth	404
L Foot Reg ^t of 9 such Comp ^s breadth	444
M Foot Reg ^t of 10 such Comp ^s breadth	484
N Foot Reg ^t of 11 such Comp ^s breadth	524
O Foot Reg ^t of 12 such Comp ^s breadth	564
P Foot Reg ^t of 13 such Comp ^s breadth	604
Q Foot Reg ^t of 14 such Comp ^s breadth	644
R Foot Reg ^t of 15 such Comp ^s breadth	684
S Foot Reg ^t of 16 such Comp ^s breadth	724

Souldiers of these 9 Reg^t 16200 Breadth of the Lodgm^t 3076 foot

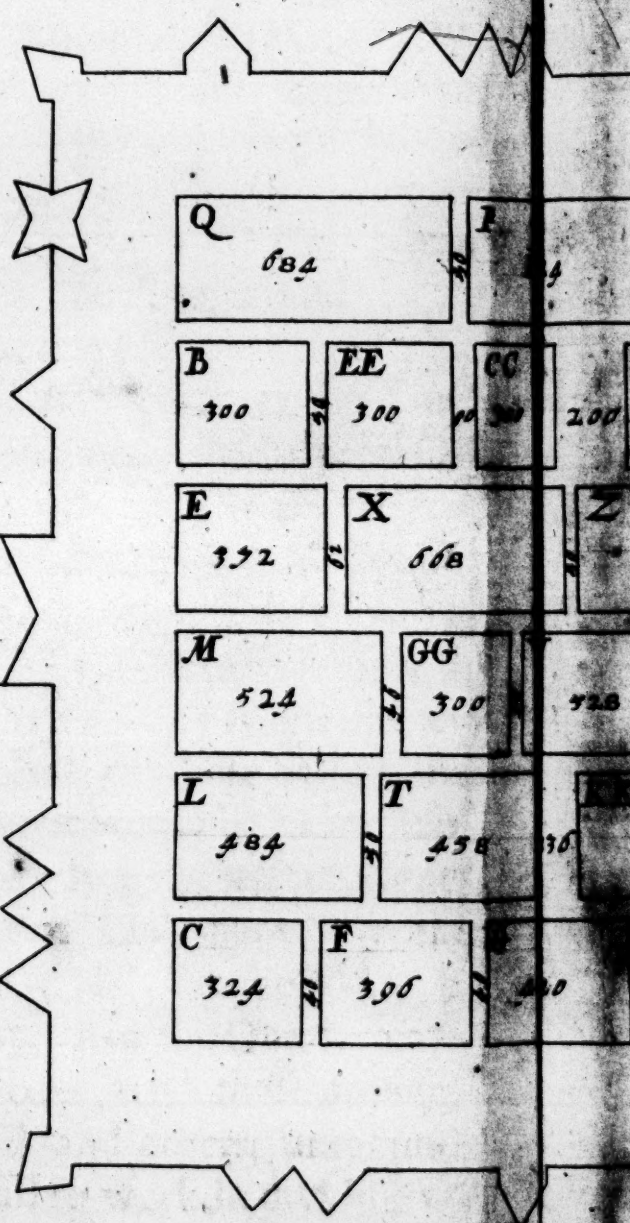
T Horse Reg ^t of 4 Troopes each 100 men bredth	388
U Horse Reg ^t of 5 such Troops breadth	458
V Horse Reg ^t of 6 such Troops breadth	528
W Horse Reg ^t of 7 such Troops breadth	598
X Horse Reg ^t of 8 such Troops breadth	668
Y Horse Reg ^t of 9 such Troops breadth	738
Z Horse Reg ^t of 10 such Troops breadth	808

Horse 4900 Breadth of the 7 Lodgem^t 4186 foot

A Generalls owne Lodgm ^t breadth	600
B One Officer Generall Lodgm ^t breadth	400
C One other Generall Officer Lodgm ^t breadth	300
D One other Gen ^l Officer Lodgm ^t breadth	300
E Strangers Lodgment breadth	300
F Generall of y ^e Ordnance Lodgm ^t breadth	450
G Lodgm ^t for y ^e sick breddth	300
H Lodgem ^t for y ^e Artillerye breadth	400
I Lodgem ^t for y ^e Waggon Cart &c breadth	500
L Lodgem ^t for y ^e Magazine of Victuall breadth	500
M Place for y ^e Markett breadth	400
N Piazza before y ^e Generalls Lodgm ^t breadth	400

all of y^e breadth of these 12 Lodgements 4830 foot

The Numbers which are set down in the
Generall Lodgem^t are the Numbers of feet
contained in y^e breadth of each Lodgem^t

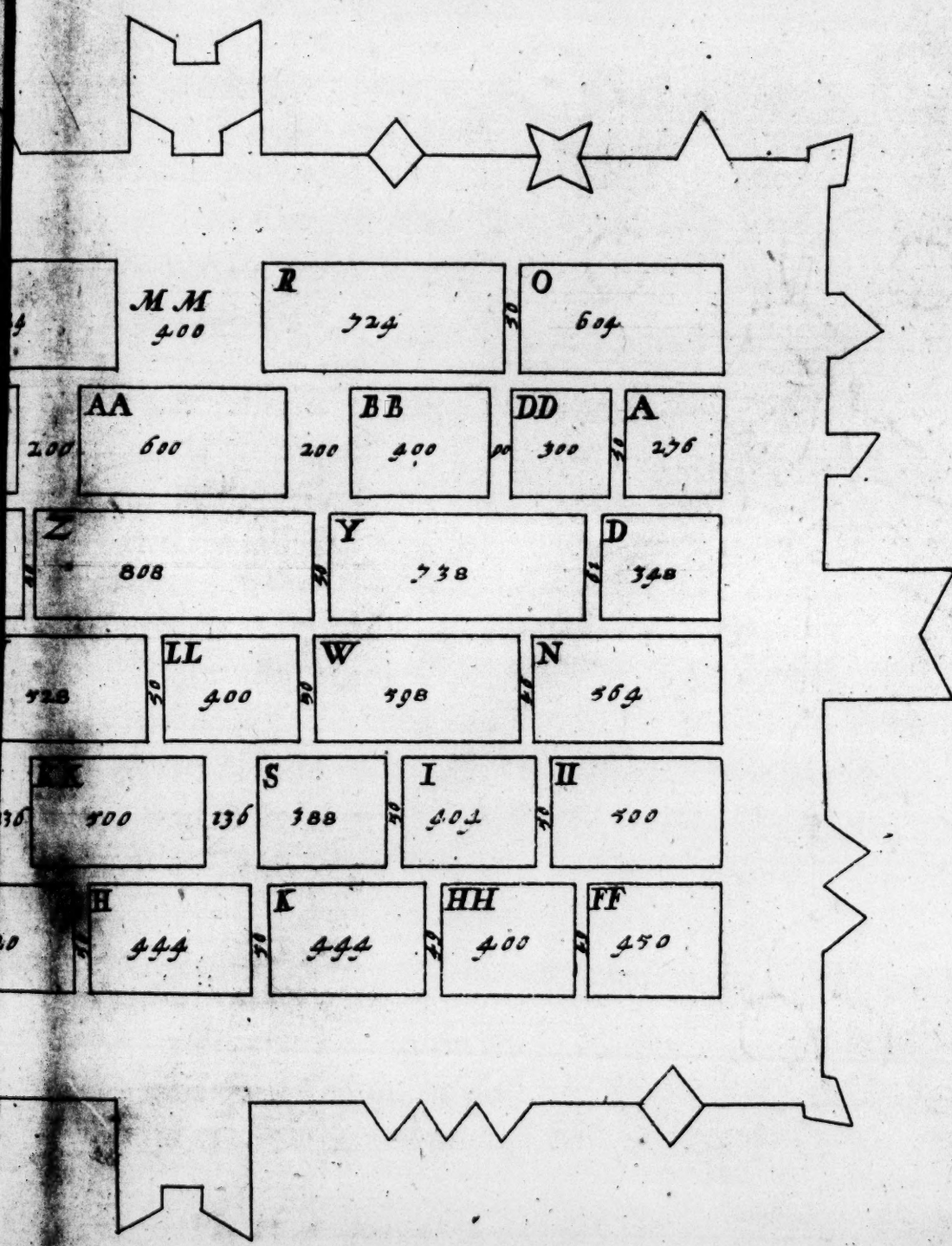


This is the Lodgement of an Army
of Horse which make in all 4900 men
The Generalls Lodgement 3 Officers
for Strangers, for the sick, for the Magazine



6 foot Long

Figure Six



in six Lines of Lodgements the whole Consisting 7 Regiments
 and 17 Regiments of foot which make in all 25400
 Gen. Gen. of the Ordnance Traine Waggon Piazza Lodgements
 and Market place

Place this foll: 20

1880

1880

The first of the year was a very dry one, and the crops were much injured. The second of the year was a very wet one, and the crops were much improved. The third of the year was a very dry one, and the crops were much injured. The fourth of the year was a very wet one, and the crops were much improved.

Place this in the

to the beforementioned Rules, and that, no time be lost.

The Romans in hot Weather, made the Soldiers by turns, to sprinkle well with Water all those Streets round their Line, as also the Piazza, other Streets, and void places, where the Officers and Soldiers use to walk all the day long; and if something like this were done in Camps, it would be of good use.

The distributing the Guards, the Word, and going the Rounds, I would recommend to have observed in the Camp, as in the Garison; only if you suspect to be assaulted in your Camp, you must have Parties of Horse, Day and Night; especially in the Night, beating the wayes, and scouring the Countrey on all sides, that you may have timely notice for your defence; And if you believe your Enemy will attempt you in the Night, it would be adviseable to have great Piles of Wood, and Fagots, a convenient distance without your Line, to set them on Fire when your Enemy is ready to begin his Work, the better to see how effectively to bestow your small and great shot, amongst them; and still in case of Alarums or Assaults, those Regiments must be led to defend that part of the Line, which they are the nearest unto, the like for the Horse; and every Regiment must know the portion of the Line, which they are to make good before there be need, lest then it may be too late. There seems to be ten Particulars which ought (if they be attainable) to be minded, in Incamping an Army in a standing Camp.

I. That the Camp be settled in a safe place, that is to say, that no heightis or eminent Grounds be so near it, as that an Enemy seizing on them on a sudden, may both by seeing into your Camp, or planting his Cannon and Mortar-pieces on those heightis, annoy, and disturb it.

II. If it be possible, that it be seated on a Navigable River; for by the benefit thereof, the expences of bringing Victuals, Ammunition, and Forage, will be cheap and expeditious, but otherwise dear and slow, if all be brought on the Axel-tree, or Backs of Beasts; for whatever is brought,

the Bringers (when it is for Sale) so heighten the price, as the poor Soldiers are hardly able to buy what they need.

But if you cannot Camp near a Navigable River, you must never omit to have your standing Camp by a River; for the dung of the Horses, and the stanch of the Butcheries, will else hazard the infecting the very Air of the Camp; besides Water must still be at hand for the Soldiers, the Horses, and the Beasts of draught, to drink; and if Water can be brought about the Graff of your standing Camp, or a great part of it, it will thereby become the more safe and defensible.

I would still have the Butchers Quarter, near the brink of the River, that they may with the less pains rid their Quarters of all the filth, which else will soon be nauseous in them.

III. Great care must be taken, that no Woods or large Coppices, be too near your Camp, lest your Enemy lodging in them, may from thence too safely annoy you, and accommodate himself.

IV. A flat Champaign Ground is the most eligible to In-camp in, because in such a Scituation, the Enemy may be discover'd, and seen afar off, the Cannon of your Camp will be the more useful to you, and prejudicial to him; and when you find your opportunity, you may the sooner, and the more easily draw out your Army, and put them in Battalia to fight.

V. A standing Camp, though it be best posted in a Plain, yet there must be no moorish or wet Ground in it, for the Vapors which will thence incessantly arise, may soon infect your Army.

VI. Great and strict Inquiry must be made, whether the Plain your standing Camp is to be in, cannot be overflow'd by the River, near it, if great Rains should happen; and your own Engineers must diligently view, if your Enemy, (in case he be the stronger) by making great Dams below your
your

your Camp, cannot force the River to overflow it, though the greatest Rains will not do it; as also, whether your Enemy being in effect the powerfuller in the Field, may not turn the River, from above your Camp into it, in which cases, if Floods, if Dams below, or turning of the River above, may drown your Camp, such a Scituation must not be made use of.

V I I. In scituating of a standing Camp, you are to elect a place, near to which you may have good Grazing for your Horses, and Cattle; Grounds proper for Meadow, (which usually are near a River) and Wood and Coppice, both for Fuel, and making your Hutts.

V I I I. If the River adjoining be Navigable, or not alwayes fordable, Bridges of Boats must be cast over it, else you will be soon streightned by your Enemy, and probably he will raise Mounts and Batteries on the other side the River, which shall play into your Camp, and exceedingly annoy it, if not force you to abandon it, and in disorder too, whereby he will have too fair an opportunity to defeat you; therefore before your Bridges of Boats are cast over the River, you must immediately provide to secure them against they are cast over, by raising Forts, and Lines between the Forts, in which you may draw up safely your Battalions and Squadrons, and likewise furnish those Forts with good Artillery, and man them alwayes sufficiently.

Also a competent distance above your standing Camp, you must have a Boom or Cable under Water, or Chain ready to draw across the River, and cover and well defend them at both ends, together with Boats well mann'd, thereby to defeat any design of your Enemies, by floating Engines he may make, to destroy the Bridges of Boats.

I X. The standing Camp must not be too scant, nor too large, but duly proportionate to the Army, Train, and Baggage, you are to lodge in it; and all the wayes unto it, you must with your best industry secure, and what you cannot secure, you must spoil and make them useless to your Enemy.

X. Lastly,

X. Lastly, If there be any Eminencies of Ground near your standing Camp, and yet without your Line that environs it, you must secure those heighths, not only by making Redoubts or Forts on the tops of them, but also by making a Line, if you have men enough to do it, round about the foot of those heighths; and you must make cover'd wayes from your Camp to those Redoubts, or Forts, the more safely to relieve them, in case your Enemy vigorously should attack them; nor is it amiss to have Mines under them, to blow them up, should your Enemy enter them; whereby he will be the more endamaged if they enter, or the more deterr'd from entering.

All Coppices and Woods which are at too much distance to be secured by a Line, ought to be cut down or burnt, to prevent those advantages, which else in many wayes, your Enemy will draw from them.

In making your Line, you may have sometimes unequal Grounds, through which you run it, some being high, and some low; on the heighths of a standing Camp, (which are natural *Cavaleers*) I would still make Forts, and plant my longest Cannon on them.

Where the Ground is sandy, or gravelly, or for any cause apt to slide, I would not depend on the facing of Sods, but drive Poles into the Ground, Wattle between them, and fling the Earth which arises out of your Graft, between the outwardmost and innermost Wattlings.

Where the Ground is Moorish on the Verge of your Line, and is sometimes, in dry Seasons, passable by Horse or Foot, I would with *Pallisadoes* and *Stockades*, secure it; or by many join'd Turnspikes, or *Chevaleers de Freze*, and without these I would, during the whole length of the Moorish Grounds, at a competent distance, cut two or three broad and deep Ditches, which will fill themselves with Water, and thereby discourage your Enemy to attack you in the weakest part of your Line, or if he did assault you there, much incommode him, and render it almost impossible for him to make use of his Horse in the attempt; I have also known in such cases, several Lines of deep and pretty large holes without, but near your Line, made at unequal distances, and cover'd with slight *Hurdles*, with a little Earth strew'd

strew'd over them, both to intangle an assaulting Enemy if he know it not, or discourage him if he knows, or has cause to suspect it; for it were Temerity with Foot only, to enter the Line of an inviron'd Camp, where Horse, and Foot, and Cannon, are ready to welcome them; and by the immediately beforemention'd methods, it will be difficult, if possible, for him in case his Foot enter, to have them seconded by his Cavalry, without which they are much likelier to be driven out, than to be successful.

I would likewise for the better defence of those feeblar parts of your Line, erect Batteries and Redoubts within it, the better to defend them, and to rake your Enemy, should he enter.

There are several Cares indispensably incumbent on a Commander in chief, who posts himself in an intrenched standing Camp, I shall enumerate some.

I. To have a Countrey behind his standing Camp, to supply it constantly, and at reasonable Rates, with Victuals, Forage, and all other Necessaries, and to preserve it, both from the incursions of the Enemy, and from the insultings or injury of his own Army.

II. To secure thoroughly those Towns, Forts, or Fortresses, nearest to his Camp, and in which he lodges his Magazines, which are to supply him, when the Countrey cannot, or will not do it longer; and therefore he ought alwayes, before his Enemies are near, (whereby they may awe the Countrey from supplying him, or the People of it may make that the pretence) to get into those places; with great diligence, all the Victuals and Forage he can; and from thence to furnish himself, with what his Camp cannot contain, or cannot be laid up dry in it; but still to have as much Provision within the Line of his Camp, as possibly he can, for there tis safest and at hand; for Bisket, Cheese, Butter, Meal, and such like meats, may be long kept in good condition, in little room, and are ready for food without Cookery; if the Countrey be not perfectly well affected to the General, he ought to take Hostages from it, to supply the Victuals, Forage, and other Necessaries, at the rates, times

and quantities, which shall be agreed upon; these Hostages, if well chosen, and diligently kept within the Camp, will make the Countrey punctual in performing, and be a sufficient answer to make those of it, who would starve the Camp, or the Enemy, (who else might frighten them from supplying it) that they dare not but obey, because their Hostages else will suffer.

As the chief Commander of such a standing Camp, must make his agreement on equal terms with the Countrey, for his sustenance out of it, and see to their punctual performance of it, so he must as punctually pay the Country, according to his Contract, since Fear and Gain, are usually the most operative motives with the People, to make good all Agreements.

III. The Convoys of Horse and Foot, which are to secure those who must supply your Camp, must never omit their duties, in punctually meeting, rather before than after the hour, and in carefully conveying, what is brought to the Camp, and must be strong in proportion to the need; for should such Parties fail of meeting the Countrey, at the set time and place, it might discompose all your Affairs, discourage the Bringers of Necessaries, and give them but too much cause to fail, by your example; or should the Convoys by being weak or negligent, be defeated by the Enemy, or the disaffected of the Countrey, you would not only lose that one Supply, but too probably, deter the Countrey from coming with another.

IV. The Major General, and Commissary General of the Horse, must make all the Regiments of Horse and Foot, do equal and proportionate duty, according to their Numbers, in going on such Convoys; for which end they ought to keep exact and written Lists, of all the Parties they send on such employments, from time to time; and inform the General of them; else if by favor any be exempted, or favor'd, the duty will be the heavier, and the discontents the higher.

V. If

V. If the places in which the standing Magazines are settled, which must supply the Camp, be at a great distance from it, or may have the Ways infested by the Enemy, Forts ought to be erected, and well mann'd at competent distances, the one from the other; into which should any of your Convoys be unexpectedly fallen upon, they may shelter themselves, and wait till they are relieved from the Camp; for all such attempts from the Enemy, are sudden, and by surprize, and they dare not stay to force such a Fort, lest they draw the Camp upon them; besides when every two or three miles there are such Forts, erected in the fittest places, they do not only make the Convoys march the more securely, and discourage your Enemy from attempting them, but also the Countrey People without Convoys are the more invited to bring their Provisions for your sustenance.

VI. If I foresaw, my Enemy would endeavor to straiten my standing Camp, by possessing the Countrey about it, I would immediately burn and drive whatever I could not secure in my Magazines, or within my Line, the sooner to necessitate him to dislodge; so that no two Particulars are more carefully and speedily to be perform'd, than to secure your own Victuals and Forage, and to destroy all that your Enemy will otherwise be Master of; and doubtless the first and most important duty of a General, is to provide Food and Ammunition for his Army; for men can live and fight without Pay, but can do neither without Food and Ammunition; and he who intrenches well his Camp, and hath Food the longest, must in time have the better of that War, without fighting, though his Enemy be his Superior in strength; *Gaspar de Coligny*, Admiral of France, and who in military knowledge has been exceeded by few, if by any Captains in past Ages, would often say, *War is a great Monster, which begins to be form'd by the Belly*, meaning that Food ought to be the very first care of a General for his Army.

A standing Camp thus situated, fortified, and provided for, may truly be said to be in a good posture; but in regard all these desirable Particulars beforemention'd, are not usually

usually to be compassed in all places ; whatever is defective by Nature, must be supplied by Art and Industry.

There are several Orders for the well regulating a Camp within it self, which ought to be given, punctually observed, and the Breakers of them indispensibly punish'd.

I. That all Cursing, Swearing, Lying, Stealing, Drawing a Sword, and Quarrelling, be exemplarily punish'd, both in those who are the Guilty, and in those who knowing it, do not detect it ; for which end, daily Court Martials ought to be held, that the Faulty may as soon suffer as their Offences are proved ; that the Officers and Soldiers daily come to the Service of God, at the times the several Chaplains of the Regiments are appointed to officiate ; for without the blessing of Almighty God, how can any so much as hope to prosper : Yet alas how debauch'd are the Generality of the Soldiery, who hourly, as it were, carrying their lives in their hands, ought, most of all men, to be prepared for death ; yet they, of all other Vocations, are too frequently the least fitted for it ; and though God himself does at all times, and on all persons, forbid Wickedness, yet he repeatedly does it to the Soldiery, in the XXIII. Chapter of Deuteronomy, and the 9th Verse, viz. *When the Host goeth forth against thine Enemies, then keep thee from every wicked thing.* If we own God to be our General, which who dares deny he is, since he is pleas'd to call himself *the Lord of Hosts*, we ought to obey his commands, and punish those who break them, else we shall be found to be more obedient to a General, than to our God.

I I. That the Camp be kept exceeding clean, which is not only decent, but healthy.

That none of the Soldiers do their Easements within it, but in some convenient places, at least 100 Foot without it, as the Martials of every Regiment shall appoint, either in the River or Brook, or in some Pits to be digged by every Regiment for that end.

That the Troopers, every morning and evening, be made carry out of the Line, all the dung of their Horses.

That

That the Butchers do the like as to all the filth in their Shambles, and be made kill their Beeves, Sheep, &c. out of the Camp, and that all dung and filth be buried; and that the Suttlers and Victuallers, keep their Cellars and Kitchens sweet, and that the latter be still cover'd with Sods, or raw Hides, for fear of Fire.

III. No man, without exprefs leave of his Officer, is to go further than Cannon-shot out of the Camp; nor lie out of the Camp, under a most severe Penalty.

IV. That none be admitted who are Suttlers or Victuallers, to entertain Soldiers at Night, after the Warning-piece is gone off; nor in the morning, until the *Reveille* be beaten.

V. That none be admitted Suttlers or Victuallers, but by the Martial General, who is with his Under-Officers to take care, that no bad Meat or Drink be sold to the Soldiers, or good sold at unreasonable Rates; That he set the price on all the Camp Provisions, which are daily sold, and are not supplied out of the Magazine; nor must any thing be sold amongst the private Soldiery, but by his or his Officers Licence; and by sound of Drum, to prevent the sale of stol'n Goods, to detect the Thieves, and to hinder many other mischiefs. Many such and other Orders are given in standing Camps and Leaguers, according to the Wisdom of the General, the Discipline of the Army, or the present condition of the Countrey.

I have the longer and more particularly, insisted on this part of the *Art of War*, of intrench'd Incampings, because it is what in *England* we have not been much accustomed unto, and therefore are generally the less knowing in it; for I have seen eminent Commanders there, when they came with Armies for the War of *Ireland*, so great Strangers to the Rules of it, as their Camps appeared to me to be like Fairs; and some of them, not only have ingeniously acknowledged to me, they were to seek in that great part of War, but condescended to inform themselves from me,

what I could tell them on that Subject, choosing rather to confess their ignorance, that they might mend it, than to continue under it; though I heartily wished them a better Instructor.

I also have been convinced by reading the *Greek* and *Roman* Histories, that they ow'd as much of their Conquests, to their well Incamping, as to their other excellent Military Discipline, and their Valor; it would be almost endless to enumerate, what Kingdoms and Provinces they kept in obedience, by their standing Camps; and how often they stop'd the invasions of Torrents of barbarous Nations (as they were pleas'd to term them) by the same proceeding; and having first wearied out their Enemies, by such safe and beneficial delays, then on some great advantages, they would give them Battel, and defeat them; none of which they could have effected, or rationally have attempted, but by their thoroughly knowing how to Incamp advantageously, by constantly practising it, and by a timely providing of Food, and Forage.

I have likewise observed these few last Years, that the *French*, who have not only many eminent Commanders, but not the most of any one Nation, and daily improve the Art of making War, have begun to revive, and with great benefit to themselves, this almost obsolete part of it; For I take the Prince of *Conde*, to be one of the famousst Captains, that any Age hath produced; and I observed when the Prince of *Orange*, the *Imperialists*, under the Count *de Souches*, and the *Flemish* Forces, were united; the Prince of *Conde* who was sent to oppose them, would not give them Battel, but Incamped himself advantageously on the *French* Frontiers; so that they justly apprehended to enter them, and leave him at their backs, whereby he kept them long at a Bay, and when he found his opportunity, gave them at *Senef* so considerable a blow, as the *French* from having been on the defensive, they became afterwards the Assaulters, and closed that Campaign, by taking some of their Enemies Garisons.

The Mareschal *de Turenne* also, who was sent General to the War in *Germany*, and who in the Military Art had hardly a Superior, having there to do with the Count *de Mon-*

Montecuculi, who, I believe, has not been excell'd by any Captain in any Age, would still by intrench'd Incampings, when the *Germans* were the strongest, preserve himself and Army, by spinning out the time, and cover those Territories and places he had won, while he had been the most powerful; and to me it seems a thing very worthy observation, that after by the *Mareschal de Turenne's* being kill'd, when the *French King* sent the *Prince of Conde* from the Army in *Flanders*, to command his Army in *Germany*, he did also by intrench'd Incampings, weather that Storm; which in it self was so threatning, not only by the sudden loss of so great a Captain, but also by the *Germans* being led by the *Count de Montecuculi*, and the present Duke of *Lorraine*, two persons as considerable as the very Forces they lead; I say it seems to me very worthy of observation, that two such justly celebrated Commanders, as the *Prince of Conde*, and *Monsieur Turenne*, should observe the very same methods, in managing the same War; whereas usually when one General succeeds another, in heading the same Army, and ordering the same War, the last Commander judges it a kind of diminution to his own skill, to tread in the very paths of his Predecessors; but the *Prince of Conde* not doing so, thereby, in my poor opinion, renders three things evident:

I. That he truly judged himself so justly secure in his own Reputation, as it could receive no diminution, in following the steps of the dead General; especially he having done the like before, and successfully in *Flanders*.

II. That a wise and great Captain, will rather by his actions, confirm that course to be best, (if it be so in it self) by imitating his Predecessor, than try new methods of War, whereby out of but a meer hope to do the like thing, by a different way, he may hazard his Reputation, his Army, and the Countrey he is to cover and protect.

III. What two such Generals have practised, (all circumstances consider'd) is to me an Evincement, that by Camps intrenched and well posted, a Countrey may be best secu-

secured, an invading Enemy may be best resisted ; and in time, all advantages being taken in the nick, may be defeated, or made retire

As the *French* King manages his Wars on the *German* side, by his Captains, and makes it oftner defensive there, than invasive ; so on the *Flanders* side, he makes it generally offensive, and leads his Armies himself, which is the solideſt way to be ſucceſſful ; ſome few of the many Reaſons why I believe it is the very beſt way for a King to lead his own Armies, I ſhall here ſet down :

I. It evidences he has a Genius to the Wars, elſe he would not himſelf be at the head of his own Armies ; and that makes the Nobility and Gentry of his Kingdom War-like, ſince all Subjects of Quality, generally addiſt themſelves to what they find their Prince is moſt inclined.

II. No Prince is likely to be ſo well ſerved, or is ſo well ſerved, as he who with his own eyes, ſees who are active or remiſs in their duties ; to reward the firſt, and puniſh the laſt.

III. How many opportunities to be victorious are loſt, by a Generals ſending for, and ſtaying to receive Orders from his Prince ; all which, by his own being on the place, are laid hold of and improved.

IV. How many brave men will not go to the War, if the Prince be not there in perſon ; who if he be, cannot then be kept from the honour and duty of waiting on him.

V. How many valiant men of his Guards are to attend his perſon, which if it be not with his Army, is thereby deprived of ſo many good Fighters.

VI. How many good heads may be conſulted with in the Army, when the King is there, who would not be drawn thither, unleſs he were there ; either by reaſon of their crazy healths, or believing it below them to be in an Army, where

where any commanded but themselves, or some such other Considerations.

VII. How many Garisons may be bought, and Commanders bought off from the Enemy, when the King in person is the Merchant, which otherwise would not listen to, or trust to the Bargains offer d by his General.

It were endless to enumerate all the real advantages, which a Sovereign has, who makes War in person, against Enemies, which make War only by their Generals; nor can there be almost a larger illustration, of the truth of what I have said, than what we have seen with our own eyes, these three last Years; even that the *French* King singly, not only makes War, in effect, against all the Continents of *Europe*, but also gains, rather than loses Ground; which possibly could hardly be done by him, though he is a great and brave Prince himself, though he has a large and noble Monarchy, many eminent Commanders, and almost an innumerable company of good subaltern Officers, and is absolute, and has all his Territories united, and fronting upon the Countries of almost all his Enemies; If to all these advantages he did not in person often lead his Armies, where he means to make his chief impressions; and if he did not by intrench'd Incampings, oppose by his Generals, those of his Enemies, who else might invade his Dominions; and if he did not also excellently manage the Wars on his side; and if he were not also help'd by his Confederated Enemies being intangled under many inconveniencies, and hinder'd by many obstructions; I say, if all these did not concur, it would seem to me almost impossible to do as he does, especially since he hath also at the same time engaged himself in the protection of the *Messineses*, with his Maritime and Land Forces; whose Militia he must not only pay, but what is worse, feed the useless mouths of both Sexes, and of all Ages; and which perhaps is more than all this, he must send all things to them in his Fleets, by a long Navigation; and hinder'd therein, by the joint Naval Forces of *Spain*, and the *United Provinces*, so that many conclude, he may gain more fame by extending his Arms so far abroad, even while he has so much

need of them near home, than solid benefit by engaging in that revolted Peoples defence, unless some considerable Emergencies be favourable unto him ; but yet on the other side, why may it not be believed, that the inuring his Subjects to Navigation and Sea-fights, is singly worth the expence of that *Sicilian War* ; and indeed all things rightly consider'd, perhaps he could not more usefully attempt the attaining that end, than by making War in the *Mediterranean Sea* against *Spain* ; for thereby he gives His Majesty and the States of the *United Provinces* less jealousy, than if he managed it in any other of the *European Seas* ; he makes the War laborious, chargeable and tedious to the States, if they pay their *Mediterranean Fleet* ; or to *Spain*, if that King be at the sole expence of doing it.

It is also no little augmentation of his Glory, that *France*, which till his Reign was so little considerable at Sea ; and that *Spain*, which though during the Reign of King *Philip the Second*, made *Europe*, and the *Ottoman Empire* apprehend his Armada's, yet cannot now, even in conjunction with the Fleet of the States, hinder *France* from frequently relieving of *Messina*, and the other revolted places of the Island of *Sicily* ; nay, in Sea-Battels has forced his way to that end ; so that all things duely weigh'd, perhaps the *French Monarch* could not make a more hopeful War by Sea than this, to train up his Subjects to fight on that Element, if he aspires to be as formidable on it, as he is actually on the Land ; which may not be unreasonably presumed he does, by the Stupendious and Royal Foundations he has laid for the building of Ships, and equipping them ; and for the educating his Subjects to Navigation, and encouraging them to pursue that Calling ; and by the numerous and stately Navy he has built in a very few Years ; which is such, as some believe, may at the present, equal for Number, and size even the Fleet Royal of *England*, or the Navy of the States ; and should this be true, may it not be more likely, that he may ten Years hence, if not sooner, attempt to give the Law at Sea ; then that ten Years past, he should be so strong in Ships of War as now he is ; especially if while his Navy is growing, he can render his own Subjects capable to manage it ; for 'tis easier to increase Fleets, than at first to build

build them : So that this *Messinse* War, which some consider as a blemish in his Politicks, may be none of the least depths of them.

But since I have asserted two particulars, *viz.* the French Kings excellent management of his Wars, and the advantage he reaps, by the intanglements and difficulties which his Confederated Enemies are under : I esteem my self obliged to set down some of my Grounds for those two Assertions.

I. I find that having so many formidable Armies to deal with, and being thereby unable to have Forces, both to face every one of them, and reserve Armies also, he is very cautious to avoid a general decisive Battel, lest the loss of it might hazard his Monarchy.

II. He has been usually in the Field about the beginning of *March*, and by having his Armies excellently well provided, and frankly hazarding his Soldiery, he has taken in 18 or 19 Weeks, before the whole Confederacy can imbody, more Countries and important Garisons, than they have retaken in the six succeeding Months after they are imbodyed.

III. Being an absolute Monarch, and having none in his Armies but such as depend on his Will ; he may alwayes pursue the Councel which is in it self best, and may execute it with expedition, and secrecie ; so that having resolved where to make his impression in the very opening of the Spring, he provides in the Neighbouring Territories his Magazines for Victuals and Forage accordingly ; and thereby what supplies him with both, doth disable those Territories to supply his Enemies on the place, should they come to raise any of his Sieges, with an Army formed of the Forces of the whole Confederacy : And by his having formerly secured or consumed all Meat and Forage near his Leageurs, makes it impossible for the other in that ill season of the Year, to carry all of both sorts on the Axle-tree, sufficient for themselves, though it were but for a few dayes ; and having by his Lines of Circumvallation made it almost an act of Temerity

merity to attempt to force them, he makes it also an impossibility to constrain him to raise his Sieges by a diversion. For what place can they besiege in a Season, when the earth yields no sustenance for Man or Horse; and when they have not Magazines of both laid in beforehand to supply them. And if they should attempt to raise his Sieges, but by such part of the Forces of the Confederacy as can carry Provision and Forage with them on the Axle-tree, or by Boats, 'tis much more than an even Wager, that they will repent it, sooner than he.

I V. Since the *Germans* are the greatest force of the Confederacy, by his so early in the Year attacking the *Spaniards*, *Flemish* Territories, he renders the *German* assistance useless to those Countries in that Season; since 'tis almost a Winters march to lead Armies timely enough from the Centre, or remote parts of the Empire (where commonly they have their best Winter quarters) to the Frontiers of *Flanders*, were there no impediment but the length of the Way; but when to that is added, the ill season of the Year, and the vast charge and difficulty of carrying Horse and Mans meat, besides Artillery, Ammunition, and needful Baggage so far, to form also Magazines then timely enough to answer the occasion, Experience as well as the Reason of the thing, sufficiently evidences is not practicable; so that no formidable Army, can at such times be expected from thence: Besides the great Garisons the *French* keep at *Brisac*, *Schleckstadt* &c. and the Flying Camp they have on those Frontiers of *Germany*, renders it hazardous to send the Body of their Army to relieve *Flanders* lest during their absence, their own Territories be exposed to the incursions of the *French*. The *Spaniards* on the other side, though assisted by the *States*, are not over-able to cope with all the power of *France*, headed by their King in person, and attended by all that brave and numerous *Noblesse*, which usually wait on him; nor is it over-likely that the *States* will be ready to hazard their Armies, onely to relieve the *Spaniards*, who some have thought are not able, and others have fancied are not very willing to relieve themselves in *Flanders*; so that to me it seems the *French* King plays a
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wise and secure Game, as he orders his War; for if the *Germans* should march in that ill season, and unprovided with Magazines, they would probably by such a march in the dawn of the Spring, disable their Army to do much all the ensuing Summer; and if they do not make such marches in the Spring, the *French King* does then gain more than he can lose all the rest of the Campaign, which is a Military Dilemma can hardly be avoided: Besides, the farther the *French King* advances his Conquests, and the more Garisons he takes, in his Enemies Countries, during the Spring, the more he secures himself from having his own Dominions invaded by them in the Summer, at least by the way of the *Spaniards Netherlands*.

There seems to remain then but two other probable ways for their doing of it, by *Lorraine*, or by *Alsatia*; in the first, he is not only gathering a great Army, but strongly fortifying all considerable places there, and in the latter, I hear, he has laid all the Countrey waste; so that it will be difficult, if possible, to invade him by *Alsatia*, and it will be no easie task to do it by *Lorraine*, when so many strong Garisons must be taken, his Army looking on; or if untaken left at their backs should they enter *France*, and Monsieur de *Crequi's* Army to watch and attend their motions, which by great detachments may be reinforced according to their need by the *French Armies* in *Flanders*; and to me it would seem a temerarious Action, for the *Confederates* to enter *France*, if they could, and leave the *French New Conquests* in *Flaxanders*, with the Armies which cover them, the old and new Garisons in *Lorraine* and the Mareschal de *Crequi's* Army there, and the Desert of *Alsatia* at their backs, and this too without having any *Confederates* (that are yet visible) in *France* to join with them, or any Garison in it at their devotion, where they might form Arcenals, Magazines, leave their Sick or Wounded, &c. so that in my poor judgment, it seems against all the Maxims of Reason and Military Experiment, that the *Confederates* will invade *France* if they could, as the present state of Affairs are: I know 'tis almost the general opinion, that great Action will be this ensuing Summer, but I must own I cannot bring my self to believe, the Event will be proportionable to the Expectation. For to me it

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seems very probable, that the Game the *French* will play is, with their best and greatest Army to oppose (but without giving a decisive Battel) the *Germans*, when they enter *Lorrain*, which is the likeliest, if not the onely way they will come ; and thereby the *French* having all the Garisons, and the standing Bridges over the unfordable Rivers , they may, by posting themselves in advantageous places, and by intrench'd Incampings, keep the *Germans* at a Bay, spin out the Summer, and by the little progress of the War, endeavor to render the Empire weary of it.

For having, in effect, made *Lorrain* the onely way by which the *Germans* can advance, they have doubtless already so well furnished their own Magazines in those parts, that they will be provided for plentifully ; whereas 'tis to be doubted whether the *Germans* can be so well furnish'd with Victuals, when all they eat must be brought on Carriages, and often from Countries or Stores at a considerable distance, and from Princes whose Territories get little , and suffer much by the War, while the *French* will have their Food at hand, and will destroy whatever they cannot secure; by which means, the farther their Enemy advances into *Lorrain*, the more unlikely and troublesom it will be to be fed, while they are there ; Nor will the *Germans* probably be able to force any considerable place there, since such as are so, will be well fortified, mann'd and provided for, and to sit down before a strong Garison, while an Army which it may be is as strong as their own, is ready to relieve it, or to cut off all their Convoys, is no usual Enterprize.

If the Prince of *Orange* be strong enough to act apart with his own Army, and the Governor of *Flanders*, by additional Forces of the *Germans*, be able to do the like with his Army, the *French*, who have Armies to attend their motions, will, in all likelihood, either relieve the places they shall besiege, or if they shall have so strengthned their Lines of Circumvallation, before the *French* can fling the necessary relief into those Garisons they shall besiege, as it will render it too hazardous to try to force the Line, the *French*, by diversion, may besiege some places of theirs, and Take as much as they Lose ; for in that Season they will have Forage in the Field, and their Magazines of Victuals near, neither of which the

the *Germans* could have in the beginning of the Spring; when the *French* inlarge their Conquests, so that the *French* by that excellent conduct wherewith they order their Affairs, do certainly take places, before the *Confederates* can come into the Field, and will, in all likelihood, lose few after.

On the side of *Alsatia*, the *French* keep but very few Garisons, and those excellently furnished, and the Countrey generally wasted; so that if the Forces of the Circles of the Empire besiege and reduce one of them the ensuing Summer, that will probably be the most they can aim at, and possibly all things consider'd, more than they can effect.

To the best of my observation, the *French* with great prudence, attack Places in the beginning of the Spring, when there is no Army to relieve them; and in the Summer, when the whole Confederacy is in the Field, they are usually on the defensive, and cover what they have took; and in my weak judgment, they do at least as much by their alwayes providing well to eat, and by their intrenched Incampings, as by their good Fighting, which questionless is the most hopeful and the most solid way of making War; for it has been for many Ages a standing Military Axiom, That the lesser Army if it can feed and avoid being forced to fight, it will weary out the greater Army in no long time.

These are some of the many Reasons which induced me to commend the *French* Kings excellent manner of managing this War, and why I cannot readily believe the results of this ensuing Summer, will be so great as many think.

I shall now mention some of those Inconveniences and Intanglements which his Confederated Enemies, seem to me to lie under, and which are so helpful to him.

I. That Union being made up of many absolute Sovereigns, and States, some of the highest, some of the middle, and some of the lesser size, nothing can be designed, much less attempted by them, but by joint consent, and after long consultations; at which since the Sovereigns cannot be personally present, they must be carried on by their Ministers, whereby before any thing can be finally resolved, much time is consumed, motions are much slower, than the Nature of War

War requires, the due secrecy of designs cannot be observed, on which depends the life of all Military Action; and such Resolutions as possibly in themselves are the very best, are usually opposed by those of them, who find not their particular Interests in the observing and pursuing them.

I I. When after much time and labour, during a whole Winter, all the *Confederates* agree how the War shall be best managed the ensuing Summer; it is great odds, but all or the most considerable measures then taken, will be broken again, for they only knowing their own Project for the *Campania*, and not their Enemies, his early actings may necessitate them to alter theirs; in which case most of the Summer will be consumed in concerting how it shall be employed. This uncertainty, during which their Armies are at a gaze, does not only give great Advantages to an active and vigilant Enemy who is resolved what to do, and vigorously prosecutes his designs; but also slackens the courage of their own Soldiery; towards which, no one thing can more contribute, than Irresolution in their Superiors; Nor is it a possible thing (at least in my humble opinion) to order a War as it ought to be, when those who command in it, must on all Emergencies send to their Masters for new directions. And therefore the *Romans*, as jealous as they were of their liberty, never were embark'd in a dangerous War indeed, but they created a Dictator, who was absolute for the time being, and who was not fetter'd with the necessity of sending to the Senate for new Orders, on new Accidents, but was at his liberty to improve them on the place. All which confirms on the account of Reason what Experiment in all Ages has clearly evinced, which is, *That a Monarch who is at the Head of his own Armies, has a hopefuller Game to play in War, than many mighty Princes who compose a League, and act by several Generals, and are acted by various Interests.*

I I I. Though the opposing the formidable and growing Power of *France* was the true Cement of the present Confederacy and Union; yet as by the greatness of their own strength their fears of *France* lessen; so many of it cool in their first vigor, left by too much humbling their Enemy abroad,

abroad, they may too much heighten their greatest Allies at home; and so what in shew renders the League the stronger, does, in effect, weaken the actings of it.

I V. Oftentimes they can neither agree to divide what they have gotten, nor how they shall divide what they may get; though possibly, the dividing of the Bears skin is more easily agreed unto before he is kill'd, than after; and possibly also those of the Confederacy which are weary of the War, had rather make their being unsatisfied with their Partition past, or to come, the pretence of their withdrawing, or remissness, than to own they are tyred with the charge, trouble, and hazard they undergo, and then how apt are such Princes or States to listen to a Neutrality, if offer'd by the *French*.

V. What differences are and must be raised every Winter, how the Armies shall be then quarter'd; for some Sovereigns which are the least rich, and have the scantest Territories, yet have the fittest to make Winter Quarters in; and where by posting great Bodies of the Soldiery, they may be the better able to resist the incursions of their Enemy, and to make successful ones into his Territories; but if such Winter Quarters be granted by the lesser Princes, and States; than those who are to be least Gainers by the War, undergo the greatest burthen of it, and suffer the most considerable damage by it: And if they will not quarter the Forces where they are most useful, then not only the whole Union suffers thereby, but also those lesser Princes themselves and their Subjects; who not being willing to be eaten up by their Friends, and unable to resist with their own Forces those of *France*, become a Prey unto the latter, to avoid being devoured by the former.

Nay, sometimes the necessity of the common safety and benefit, makes the stronger of the Confederacy take Winter Quarters, on the weaker, without or against the permission of the Princes themselves; whereby Animosities are raised, in which Friends to the Wrong'd, or fear of being in the future under the like usage, makes others share in the discontents and resentments. And such Forces as are quar-

ter'd in any Princes Territories against his leave, are thereby all the Winter put on double duty ; that against the Enemy, and that against the People of the Countrey ; who else, would by surprize revenge their Princes Affront, and prevent their own farther Sufferings. So that their Winter-quarters which should be to refresh them against the Spring, is frequently more harassing to them, than all the Summer Service is, or can be.

V I. Since the War is pursued by several Armies at once, and consequently a greater Monarchs Forces is to be often united with those of a lesser, many difficulties arise about the chief Command in an Army so composed, and greater mischiefs are too frequently the inseparable consequences of its being so composed. For where the two Sovereign Powers whose Troops make that Body, have their distinct Generals in it, though one of them be made the Superior as to Command, yet Battels are not to be given, nor Sieges undertaken, or continued, without the concurrence of the other General, who perhaps if the hazards both Armies are to undergo, be to redound to the benefit of his own Master singly, or chiefly, will be more inclined to embark in them, than he will be, if the result of the Success be more for the advantage of his Colleague, whereby particular ends, often obstruct the general good of the Union.

I shall give two remarkable instances of this great Truth which very recently happen'd.

The Prince of Orange not being able singly to take *Maestricht*, is therefore join'd with the *Flemish* Forces, &c. When by the Valor, Conduct, Danger, and Indefatigableness of that brave young Prince, (true Inheritor of the Virtues of his famous Ancestors, and deservedly Worthy of the Royal Blood of *England*, which he has the honour to be of) the Siege was so far advanced, as that the place must be taken, unless relieved by a Battel, or his own being necessitated to raise it ; the *French King* orders Monsieur *de Schomberg* with all the united Forces of those Parts, (which his Courage and Conduct justly intitled him to command) to try to relieve the place sufficiently, or make the Prince raise his Siege : Upon the advance of Monsieur *Schomberg* the Prince,

Prince, (as I am credibly inform'd) was absolutely for giving him Battel, that the fruits of so much Time, Labour, Expence, and Blood, might not be lost, and lost with some disparagement ; but his Associates judging that to be too hazardous a Counsel, the Siege was raised, and possibly with more loss of Men, Cannon, and Reputation, than the ill success of a Battel could have cost. Far be it from me to say, that those who were for raising the Siege, believed it of more importance to their King to keep his Troops entire, than that the Prince should be again Master of *Maestricht* ; much less will I say that they would not venture all their Forces on an Engagement, where the States were to have the greatest, if not the sole benefit of the success, though the others were to run a great share of the hazard ; but this I hope without offence may be thought, that it had been more advisable never to have engaged in that Siege, than after having so far proceeded, to have quitted it : For who could in reason believe, that so great a Monarch as the *French King* is, and so jealous of the *Glory of his Arms*, as all *Europe* has seen, and too many of it felt, would let a place of so vast importance as *Maestricht*, be torn from him without a Battel ; so that in my poor judgment, the Siege should never have been resolved upon, or the Battel should have been given to have made it good. To be warm in undertaking a great design, and cool in justifying it when undertook, is seldom attended with success, or reputation. All which that Generous young Prince so well foresaw, as I am confident nothing would have made him besiege *Maestricht*, if he had not fully believed his Allies would have ventured a Battel to have carried it. I know not whither to do so, was a part of their written Contract, but I take it to be clearly inferr'd by their sitting down before it ; and therefore though the Prince might share in the trouble of the ill success, yet he ought to have no part in the fault of it.

The second Evidence of this Truth, was in the Year before ; when the Prince of *Orange* was in conjunction with the *Imperial Forces*, and the *Flemish* ; how little was there done when united, and how much was suffer'd, few are ignorant of ; but as soon as the Prince commanded singly, how Gloriously did he end that Campaigne, by the reduction of
Grave,

Grave, which though it had been long besieged by General *Robenhof*, who was a brave Commander, yet till the Prince of *Orange* came thither, the Siege moved not on, with the Life, Vigor, and Success, which his Example and Conduct gave unto it.

And in the taking whereof, it will not be so much a Complement to him, as a Truth of him, if I should say, *Alexander the Great* at his Siege of the *Mellians*, or King *Henry I V.* of *France*, (as great a Captain I believe as even *Alexander* himself) at the taking of *Cahors*, ran not greater hazards as to their Persons, than the Prince of *Orange* did for the reduction of *Grave*.

Lastly, (to omit many other Particulars) oftentimes those Generals which are really the fittest to manage the War, cannot be employ'd to do it; since if a Sovereign who is of the Confederacy, will go in Person to command an Army, or send his Son, Brother, or some first Prince of his Blood to do it, none of them but will be the chief, though some under them may perhaps be more capable of being it: Whereby Superiority in Command may not alwayes be vested in him, who is the fittest to discharge it; and therefore sometimes the War prospers accordingly.

I hope whoever shall undergo the trouble of reading what I write, will be in some degree satisfied, That I had Reason to assert both the *French* Kings excellent management of his War, and his being help'd therein, by the unavoidable obstructions and intanglements which the Confederacy of his Enemies does subject them unto, both from the nature of such an Union, and from the situations of the Territories of those Sovereigns which compose it.

But if the Body of the *Confederates* strength could constantly lie as near the Frontiers of *France*, as the strength of *France*, by that Monarchs Absoluteness, Unitedness of his Dominions, and wise Management, can be brought (when he will) near the Territories of the less strong Princes of the Union; possibly his maintaining a War against almost all the Continent of *Europe*, might be a greater Trouble, Charge and Difficulty to him, than yet he has found it.

Nor indeed can so dull a judgment as mine is, readily foresee, why the *French* King may not continue the War, long enough

enough, to make his Enemies, or many of them, weary of it, unless his methods be broken by some unforeseen great Accident; as a Revolt within his own Territories, or some decisive Victory which the *Confederates* may obtain, either from the *French* Generals confident belief of winning it, or from the necessity of the *French* giving them Battel, to preserve an endanger'd detachment of his Army, or a Garrison or Territory worthy of that hazard, or some such other great Accident; or unless the Kingdom of *Spain* (now newly under the intire Ministry of *Don John*, a wise, and warlike Prince) be able, and willing, to invade the South-west part of *France* with a Royal Army; such a powerful diversion perhaps might put all the Affairs of *France* into a new Fold; for hitherto, little Armies have busied *Spain* at home, and preserved the *French* *Pyrenean* Frontiers, while all the great Ones have been employed against *Germany*, and the *Spanish* and *States* *Netherlands*: Nor is it very improbable but such an Attempt may be made; for I have still observed, that when the Ministry of a great Monarchs Affairs is on a sudden changed, the new Comer either intirely alters the measures taken by his Predecessor, or if he pursues those, he does it with greater Forces and Vigor; since in all such Mutations, the Honor of the new Minister, (if not his Safety) as well as the good of the State, incites him to a better, or more prosperous Conduct of Affairs, than that under the late Administration has been. Now whether that Conduct shall consist in acting by Maxims diametrically opposite to the former, or in heightning considerably of those, does depend upon the judgment, or inclinations of him that sits at the Helm; or on the state of things as they are then circumstantiated. But that *Don John* should attempt, or hope to incline his Master to a separate Peace, is not very likely; since to do it, nay perhaps but to attempt it, will be dangerous in it self, ungrateful to the *Confederates*, and in all likelihood is not solidly and durably attainable; And to endeavor to gain all the rest of the Union to it, or the major, or weightier number of them, looks more unlikely to be effected; for neither has there ever yet been made so numerous, or so strong an Union against *France*, as this now is; and it may be no Age has seen, that so many Monarchs, and

States, and of such various Interests, and Religions, should be at once so firmly Confederated ; which perhaps nothing could have brought about, had not the Examples of the Duke of *Lorrain*, and some other Sovereigns of the lesser size, filled all of them with so great apprehensions of the like usage, as nothing could allay, but such a League ; which since they have after the employing of much time, treasure, and industry, so happily made, 'tis not probable they will dissolve it ; especially when their Affairs seem more promising, and that notwithstanding this stupendious League, they have hitherto lost Ground. Whereby none of them all, nor no less than all of them, can judge himself safe til, by the Forces of all, they have by Arms reduced this deluge of *France*, into its first and natural Channel. For to think to do this by a Treaty, looks very improbable to me ; because the *French* King is yet too high in his hopes and strength to fall so low, as to give more by a Treaty, than (it may be) he can lose by a War ; and none of his Enemies can well think themselves secure, but by keeping fast this knot, which was so long a tying, and which experimentally they have found, has been their common safety ; and that in nothing less, can it well be found ; so that the continuance of the War appearing to be the likeliest measure that can be taken, it is hardly to be believed, that *Don John*, whose *Genius* is for Arms, and his Education has been in them, will draw his Masters Sword but half out ; but if he unsheaths it, 'twill be to purpose ; which yet as I think can hardly be done, but by being at the head of a brave Army, (and possibly getting his young Monarch to be personally present) and thereby making an effective Invasion on the Southwest parts of *France* : For no Ministry that preceded his, did of late attempt it ; and yet the only attempting it, may give more solid Advantages to the whole Union, than hitherto all the Arms of *Spain* has done as they have been order'd ; nor may he in any other way more acceptably Apologize to the Emperor in particular, and to the rest of the Union in general, for having got the Queen Regent out of the Government, than by his own being more beneficial to him and them in it. Besides, the present complexion of the Affairs of *Spain*, seems such, that it may be his only true interest, to be considerable

derable in Arms ; which he can never be, but by being great with the Sword-men ; and that he can never hope for, but by being at the head of them, and leading them to daring and high Attempts. All this seems to manifest, 'tis not improbable he may invade the French Pyrenean Frontiers, for there only he can be so considerable, and at once both so useful abroad, and safe at home ; on which last there seems a necessity on him to fix one Eye, as the other on the humbling of France ; lest otherwise the late Ministry of Spain, get again into the Saddle.

I beg the Reader's pardon for this long digression, which perhaps I may the sooner obtain, when he shall be pleased to consider, that I was partly drawn into it, by observing how useful this revived Part of the *Art of War*, of posting Armies in Intrench'd Camps, has lately been to those, who have well understood, and on fit occasions practised it ; And though all which I have now said, is not properly congruous to the Title I have given to this one Chapter ; yet it may not be altogether impertinent to what the whole Book treats of ; for the successful active part of the *Art of War*, has no less dependency on the considerative part of it, than the effect has on the cause ; and what I have so weakly, and disorderly exposed, may yet furnish a solid, and fertile judgment ; with no ill Reflections, and Notions, on this Great Subject.

The first is to be vigilant and careful, as not to be forced against his will, to come to a battle ; but if he is to unhappy, or faulty, as not to avoid it when he has the choice of it from his Army, by his words, looks, and actions, since for a chief Commander to evidence fear of a battle, or to own he has been overthrown by his Enemy, before he is grown out of the ill consequences and effects of it, does to that degree dishonour his own name, that they are still conquer'd before they fight. For the Councils of the Soldier in an Army, have their senses much better than

Of Battels.

ALL who have commanded Armies, or written of the Military Art, have universally agreed, That no one Act of War, is so great in it self, or in the Consequences of it, as Fighting a Battel; since the winning of one, has not only been the cause of taking of the Place besieged, (if in the Field the Army is defeated which comes to relieve it) but also by the gaining of the Victory, a Province, nay, a Kingdom has often been the Reward of the Victorious.

But as the Advantages are eminent to him who wins it, so the Prejudices are no less to him who loses it; and therefore nothing ought to be more exactly consider'd and weigh'd in War, than whether a decisive Battel shall be given, before the resolution to fight it, is taken.

There is hardly any thing which seems to me more essentially needful to a great Captain, than perfectly to know and lay hold of all advantages in a day of Battel; and to know all the disadvantages, that he may avoid them. I shall therefore in what I write on this Subject, specify some general Rules or Principles, which, in my opinion, ought never to be unknown or unpractis'd by a General or Commander in chief.

I. The first is, to be so vigilant and careful, as not to be forced against his will, to come to a Battel; but if he is so unhappy, or faulty, as not to avoid it, then to be sure to disguise it from his Army, by his words, looks, and actions; since for a chief Commander to evidence Fear, or Amazement; or to own he has been over-reach'd by his Enemy, before he is gotten out of the ill consequences and effects of it, does to that degree deject his own men, that they are half conquer'd before they fight. For the Generality of the Soldiery in an Army, have their Senses much better than their

their Understanding, and consequently take their *Omen* of Victory usually, from the chearful looks and words of their General ; who ought therefore in no wise to seem disanimated, or doubtful, but alwayes chearful and confident.

II. The second is, That no General should resolve to give his Enemy Battel, but on rational, or, at least, very probable Grounds, that he shall win it ; and also when the advantages of gaining it, will be greater than the prejudices will be, if he should lose it ; for whoever elects to fight a Battel on other Considerations, cannot answer the doing it, to his Prince ; to the Army he leads ; or to his own Judgment, and Conscience.

III. The third is, Whoever has his Enemy at such an advantage, as he must submit in a short time without hazard- ing a Field, ought on no terms, to expose his Army to a Battel ; but should derive that from Time, and Patience, which else he must leave to the decision of Fortune. As within my own memory I have known, That a General greedy of Honour, and impatient of Delay, when, by the wise conduct of those under him, or the ill conduct of those against him, his Enemies Army was so coop'd up, that it could not long subsist, nor Force its way ; he drew his own Army off of the Passes which shut up his Adversary, that he might come out, and decide it by a Battel ; which he lost, and deservedly.

For the turns in a Battel are so many, and are often occasion'd by such unexpected Accidents, which also proceed from such minute Causes, that a wise and great Captain will expose to Chance, only as much as the very Nature of War requires.

IV. The fourth is, When a Battel is resolved upon ; the Field to fight it in, ought to be answerable to the Numbers of your Army, and the quality of your Forces.

As for Example.

You should never choose a Ground to fight on, (if you
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can possibly avoid it) which you cannot fill up, with your fighting, and reserve Squadrons and Battalions; or as tis now usually call'd, your first, and second Line. That is, you must still endeavor to cover the outward flanks of your Wings, with a River, a Wood, a moorish Ground, or something equivalent; for else you will expose your Army too much, if your Enemy does overwing you: Whereas if you cannot be charg'd but in front, you will have the less to fear, and your Adversary the less to hope. For Instance: If I found my Army drawn up in Battalia would take up in its utmost extent but 15000 Foot; I would not choose to fight in a Plain that was 20000 Foot wide, if my Enemies Army were either more numerous than mine, or were stronger in Cavalry than I: But if by some Accident which I could not foresee, or possibly avoid, I were to fight on such a Ground, I would immediately cover one, or, if possibly, both of my Flanks, with what the Nature of the Place afforded; as besides a River, a Brook, a moorish Ground, a Wood, or Coppice; or a steep Ground, with a Ditch or Trench, or some place so incumbered, as my Adversaries Horse could not fall on that Flank, without disordering himself before, and in his doing of it.

But in case the Ground was so level and clear, as it afforded me none of those Advantages, (which would be an extraordinary thing) I would then, by my Carriages, or by immediately casting up a long and large Ditch, or Trench on my Flanks, supply by industry, what I could not otherwise attain. And if I had leisure, at the two ends of each of these Ditches, or Barricade of Wagons, especially at the Front end I would cast up a Sconce, Redoubt, or Fort, and stuff it with Musketeers, whereby the Flank of my Wings would be covered, and the Front and Rear of them defended by those Musketeers.

'Twas almost thus, that *Lewis*, Prince of *Conde* acted in the Battel at *St. Denis*, in the Reign of King *Francis* the First of *France*; And had not only thereby the Resolution, with an handful of the *French Protestants*, to fight the Constable of *Montmorancy*, whose Army was three times as great as his; but also to make it so disputable who had the Victory, that the Historians of those Times give it without scruple,

scruple, to the Party they were of, and wrote for. And it seems indeed but doubtful who had the Victory; for the next morning the Prince, and the Admiral Chastillon (by Andelot's being joined with them, who brought them not above 1000 men, (with which, until then, he made the River of Seine useless to the Parisians) drew up their Army again in the Field of Battel, and shot some Peas of Cannon even into Paris, yet none of that King's Forces came out to fight them, so that the Protestants having for a few hours brav'd the French King's Forces, and that vast City, marched away towards Champagne, to meet their German Relief.

But on the other hand, the Historians who were Royalists, attribute this wholly to the death of the Constable; and not only to the Consternation which it caused, but also to the Irresolution of the Counsellors, who should succeed him; since the Duke of Anjou, who at last did, was by many judged too young for so weighty a Charge; and it is reasonably to be believed, he would not then have been nominated, but that the Queen Regent was irremovably settled, not to lodge in such intricate times, the absolute Military Power in any of the House of Guise; or in that of Montmorancy, but in one who intirely depended on her, and would be guided by her.

And 'tis probable that the Protestants (who doubtless had been much disordered in the Battel) durst not have made that Bravade, depending only on their own strength, but at least as much on the Irresolution and disputes of their Enemies, who should be their new General. And therefore having set the best face they could on their tottering Affairs, for a short time judged it not adviseable to continue playing that part any longer, than they believed they might do it safely by the King's Army being without a Head.

I have only instanced this Particular, to manifest how a lesser Army may oppose a much greater in Battel, if the Flanks of the lesser be so well covered, as that it can only be charged in Front; which ought always indispensibly to be provided for.

Nor is it only needful where a Battel is to be fought, to pitch on a Ground answerable to the Number of your Army, but also answerable to the quality of those Forces which
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compose it; and to those of your Enemies with whom you must have to do.

As if my Enemy were stronger than I in Cavalry, I would avoid all I might fighting him in a Plain; or if I were the stronger in Horse, I would use my utmost industry to engage him in an open Countrey. And on the contrary, if I were stronger in Infantry, I would shun the Combat, unless it were in an inclosed Country, or incumbred by Woods, Brooks, Coppices, Rocks, or moorish Grounds; so if he were the stronger in Foot, I would avoid fighting in a place where he who has the most Infantry, may therefore have the most hopes of Victory.

But if you are commanded to fight by your Prince, or are engaged to do it to answer an end worthy the hazard of a Battel; or for any such other rational Consideration, great care must be alwayes taken to make choice of that Ground which is fittest for you, both in respect of your own Forces, as also of your Enemies; And in a most particular manner, if you are weakest in Foot, to cover them the best you can with your Horse; and on the contrary, if you are weakest in Horse, to cover them with your Foot.

V. The Ranging of an Army in Battel to the very best advantage, is a great furtherance to the winning of the Victory. But the so doing of it depends much, not only on the Wisdom and Skill of the General, the Nature of the Ground, and the Quality of his own Forces, but also on those of his Enemies, and on the disposition of him who commands them; so that although no standing Rules can be given to answer all these varieties, yet some positive Maxims may be set down, which if punctually observed, as things are circumstantiated, may beneficially answer all occasions, and emergencies.

And I the rather say this, because I have seldom found that the greatest Captains of elder times, (whose military knowledge and practice the Moderns justly value, and extol) have ever observed one and the same form in giving Battel; but have varied therein considerably, according to the occasion.

Cyrus being to fight against *Cræsus* King of *Lydia*, and in a large Plain, fearing to be environ'd, drew up his Army but Twelve deep in File, whereas formerly the File was 24 deep. Whereby he augmented the Front of his Army, double; overwing'd *Cræsus's*, and won the Victory.

Cæsar, at the Battel of *Pharsalia*, against *Pompey*, did quite alter the manner of the Roman Imbattelling. For having found that *Pompey* exceedingly outnumbered him in Horse, he covered one of his Flanks with a little River, and drew all his Cavalry to the other Flank; among the Squadrons whereof, he placed Bodies of his best Infantry, and there he began the Battel; Where, by having all his Horse in one Wing, and those accompanied by select *Legionary Foot*, he soon Routed that half of *Pompey's* Horse which opposed all his; and then-falling into the Flanks, and Rear of his Enemy, won the Victory.

These two are very remarkable Instances, which, among many others, verifie what I have said.

I shall now mention some of those standing Maxims, which, in my humble Opinion, are indispensibly to be observed, immediately before, and in a day of Battel.

I. The first is, With great diligence to view so well the Field you will fight in, as when you have drawn up your Army on it, you may not afterwards alter the Order of it, or change your Ground; for all such Mutations in the Face of your Enemy are very dangerous, and gives him also the greater Confidence, and your own Men the less; as being an evidence to both, of a great Failure in Conduct; And it may also be highly hazardous, either to remove the whole, or even some gross Squadrons, or Battalions, to the Ground which on second thoughts may be believed the better Ground of the two; since your Enemy being then near, may take the benefit, which such disorders, while the alteration is making, may give him, and may improve it to your total overthrow; so that, 'tis in my poor Opinion, more adviseable to keep the Ground, and Order you are in, though by your oversight, neither should be the very best, than to alter it in the fight of your Enemy, and when he is near; And all changes of Grounds, or Order, in his view, ought never to be made in

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Gross Bodies; but almost insensibly to them and your own Army, by a few Files at a time; and where they cannot be so made, 'tis better to leave them unmade.

I had been often told, but could scarcely credit it, that at the fatal Battel of *Naseby*, after my Lord *Fairfax* his Army was drawn up, in view of *His Majesties*; it having been judged that the Ground a little behind them, was better than that they stood upon, they removed thither; I had the opportunity some time after, to discourse on this Subject with Major General *Skippon*, (who had the chief ordering of the Lord *Fairfax* his Army that day) and having ask'd him if this were true, he could not deny it; And when I told him I almost admir'd at it, for the Reasons before express'd, he averr'd, he was against it; but he obeyed the Orders for doing it, only because he could not get them altered.

After the Ground to fight on is well chosen, and all the advantages of it discovered, then to possess, and to secure the most useful and commanding Posts of it with all imaginable diligence. As King *Henry IV.* of *France* did, at the Battel of *Arques*, where that great Monarch shewed as much conduct as any of the *Greek* and *Roman* Generals ever did, in any of their greatest Battels.

II. The second is, If you come near your Enemy, but yet so late in the day, that the Battel must be defer'd till the next morning; then, if the Season be sharp, to shelter your own Army in the most convenient Villages and Woods, adjoining to the Field you will fight in, and thereby give them all the ease you can, as King *Henry IV.* of *France* did, the night before the Battel of *Juri*. But you must not on any terms neglect the safety of your Army, for the ease of it; and therefore it must be Quarter'd, or Camp'd so well, as that on the touch of the Drum all may be Embattled, and ready to receive your Enemy.

For which end great *Corps de Garde*s ought to be advanced, and many Centinels, as covertly as may be placed near the Enemy, and every moment visited, and relieved, by vigilant Officers. These Centinels, or *Perdu's*, are to give instant Notice to the advanced Guards if the Enemy moves, and

and those Guards, with their Seconds, or Reserves, are to find the Enemy play, while your Army is drawing up to receive him. But still fresh Troops must be sent to sustain your advanced Corps d: Gard, if they are vigorously attacked; lest by their being totally overthrown, your Enemy be encouraged to push at All, and your own Men be somewhat disheartned; For it may so happen that your Enemy, if he finds all the advantages of the Place to fight in, are so well secured by your care, and diligence, as that the next day it may be hazardous to fight in that Field; he may make choice in the night, if you are not Intrenched, to attempt you, where the confusion which darkness usually engenders, may be equally divided between both Parties; this of the two, being the more eligible.

Nor were it amiss, but very adviseable, if you have to deal with a General who is hot, and undertaking; or one who, by the necessity of his Affairs, must put All to hazard, that in such Nights, when you are near your Enemy, and may, for the beforementioned Reasons, have ground to believe he will attempt you during the obscurity; and while you are unintrenched, to cause great Piles of Wood, or Fagots, or some such combustible stuff, to be ready to be kindled in fit places, and at fit distances, that if he advances, you may the better see how to point your Cannon, and dispose of your small Shot most effectually; and by such Fires also, terrifie, and disorder his Horses, which generally are frightened at the sight of Fire, especially in the Night.

This I find was practised near *Lorges* in *Beaujeu*, by *Anthony* King of *Navarre*, *Francis* Duke of *Guise*, and the Constable *Montmorancy*, when *Lewis*, Prince of *Conde*, and the Admiral of *Chastillon*, prest by the necessity of their Affairs, went to attack the Royal Army by Night; and which so much disheartned the Assaulters, as they retreated.

The Quartering of your Army at all times (but especially when that of the Enemies is very near) ought to be in such manner, as that the Soldiers may be soonest in Battalia to receive him; and therefore to lodge it in the Form you will fight, is still the very best; that is, that such Forces as compose your Wings, and Body, may have only to go out of their Hutts, Tents, Villages, or Houses, to be in the Figure

gure you will fight in ; else in case of an Alarm, the disorders will be many, and dangerous ; but this way, there can be but few, if any.

The nearer you draw towards your Enemy, or your Enemy to you, your Quarters must alwayes be brought closer, and your advanced Guards of Horse, and Foot, the stronger ; and your discovery the more vigilant.

III. The third is, To be the first drawn up, on the Ground you will fight in ; which is constantly attended with three considerable benefits. The point of Honor which you gain by being the earliest on the spot, which animates your own Party, and often daunts your Enemies. The being thereby enabled without opposition to possess all the advantages of the Ground, either for the planting of your Cannon, or for casting up *Parapetts* on some Eminencies which command all about it, (as Sir *Francis Vere* did at the Battel of *Newport*) or by drawing up your Carriages, or making a Ditch to cover one, or both the Flanks of your Wings ; which you cannot well do, if your Enemy be earlier, or as early as you on the place. The being thereby sometimes in a posture to fall upon, and cut off your Enemies Squadrons, and Battalions ; or to Rake them with your Cannon while they are drawing up, which is an advantage, when it may be taken, that is of great use.

IV. The fourth is, That your Squadrons of Horse ought not to be too great, for the Reasons which I have formerly mentioned in that *Chapter* which Treats of the Disciplining of your Soldiery. Yet if that need requires, two, nay three of the small ones may be put into one great one ; but still I would advise, that the same Officers should command the same Squadrons, when united, as they did before : By which means they will retain the Agility which is in small Parties, and yet when there is need, have the force of great ones ; and this I propound to be observed ; because, whoever has been practically versed in fighting, will hardly deny, but that 150 Horse in two Squadrons, will be likely to rout and beat 200 Horse in one Squadron ; And the reason to me seems very evident ; for besides the opportunity you have there-
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by to fall into his Flank and Rear, whatever Body of Men does fight, or has fought, disorders it self, though it gets the better ; and being disorder'd, a less Number that is not, to speak humanely, must (if the Men be equally good) overthrow a greater that is.

And daily Experience shews how difficult, if possible, it is, suddenly to Rally great Squadrons, when by Fighting they have been disorder'd ; especially if but a small Squadron is at hand, to fall on them, and improve their being so discomposed : Nor indeed can great Squadrons march many Paces, though the Ground be clear, and level, without disordering their Ranks ; but if it be uneven, or rugged, they are almost out of their fighting Order, before they come to fight ; which are mischiefs that less Squadrons, are not so liable unto : But Battalions of Foot, as being more Governable, may be large, according to the occasion and need ; especially those which are composed of Pikes : for a great Battalion, or Stand of those in the Vanguard, the Battel, and the Rearguard of the Infantry, are the safety of the whole, and under their shelter All Rallyings may be best made.

V. The fifth is, A General must never omit in the drawing up of his Army, so to dispose of his Squadrons, and Battalions, as probably every one of them may come to fight, again, and again, if the need requires, before they are totally overthrown. It is also observable that in a Battel, whoever keeps in Reserve a Body of Men, that are not led to fight until all the Enemies Squadrons have fought, rarely misses to carry away the Victory ; and whoever has the last Reserves, is very likely at last, to be the Victorious.

One signal Illustration of this Truth among many, I shall instance ; At the Battel of *Dreux* in *France*, where the Constable *Montmorancy*, assisted by *Francis* Duke of *Guise*, (the greatest Captains of that Age) commanded the *Royallists* ; and *Lewis* Prince of *Condé*, and the *Admiral* the *Protestants* ; He, and the *Admiral*, defeated all the Forces they saw ; took the *Constable* Prisoner ; past over the Bellies of the *Swissers*, who made almost a miraculous resistance , and concluded, they had therefore won the Victory. In the meanwhile the Duke of *Guise*, who led the Left Wing of the

French King's Army, either by design, as his Enemies said, or as an act of high conduct, so cover'd his Troops, with the Village of *Blainville*, and the Trees and Shrubs about it, that he was not so much as seen by the *Protestants*, nor moved from thence, until the *Constable* was taken Prisoner, the *Mareschal de St. André* killed, and all those Forces which were considered by the *Protestants*, as the whole Army of the *Royalists*, were intirely routed, and so confusedly flying, as he was in no danger to have his Squadrons disordered by the Runawayes of his own Party; but then, advancing his Troops, which were entire, he soon turned the Fortune of the day, took the Prince of *Condé* Prisoner, and overthrew all that opposed him. For 'tis a tedious, and difficult, if not an impossible task, to put into good order again, an Army that has newly fought, so as to bring it suddenly to fight again; some being busied about the Pillage, and Prisoners they have taken, or are pursuing, others being loth to return to new dangers; and all in effect being so heated, and disordered, that they do not, or will not hear, the Commands of their Superiors.

VI. A sixth is, A General must never bring all his Troops to fight at once; and therefore is still to draw up his Army, at least in two Lines, or orders of Battel, and in three in case the Ground, and the Number of his Forces, allow it: For those Lines are in effect so many Armies; and the second Line being intire, though the first should be broken, often recovers the day; especially if the second Line be at so just a distance behind the first, as if the first be overthrown, it does not disorder the second; and also so near, that some Squadrons of the second Line, can come up timely enough to redress any beginning of a breach in the first, without too much discomposing it self.

The *Romans* constantly fought their Infantry in three Lines, or orders of Battel, the one behind the other; if the *Hostatii* were worsted, they fell between the Intervals of the *Principi*, and there Rallied again, while the *Principi* advanced to give a check to the Pursuers; and if both the *Hostatii* and *Principi* were Routed, they fell in between the Intervals of the *Triarii*; but if those could not sustain the shock, the day was lost.

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VII. A seventh is, To have expert, vigilant, and valiant Commanders, to be at the Head of those five Gross Bodies, of which an Army is usually composed in a day of Battel; that is to say, the three *Tertia's* of the Infantry, (which as they march we usually call, *Van, Battle, and Rear*) and the two Wings of the Cavalry; they ought to be Men of great Judgment, Authority, and *Presence of Mind*, to remedy all Disasters, and to improve all Advantages in the nick of time; for in such Actions, the least delay or remissness, is too usually irrecoverable.

To these five chief Officers whose Stations ought to be in the first Line, there ought also to be five others to command in the second Line; for this is of equal importance, if not of greater; since 'tis easier to give the Attack well, while all is in Order; than to recover a Disorder, when it once has happened.

In my opinion it is a Duty in a General which he ought never to omit, not only to appoint before the Armies Engage, what Persons by Name shall command in chief the five Gross Bodies of the first Line, and of the second Line; but also what Commander in every of the said Gross Bodies, shall in course, succeed in the Conduct of every such Body, in case the Person whose right it is to do it, or who is appointed to do it, should be kill'd, or so wounded, as he is thereby disabled to discharge so weighty a Trust, and to declare openly to every Gross Body, who, by Name is to lead them; and who by Name is to succeed him who shall be killed, or disabled from discharging his Function; that no Man may be ignorant, or pretend ignorance therein: For if this be not done before Troops are mingled in the Fight, it will be too late to do it afterwards; and I have known sad Disasters occasioned for want of this necessary Precaution.

Some who have been guilty of this Omission, have, as their Excuse, alledged; that when he who commanded that Gross was killed, or put out of Fight by his hurts, or his Horse being killed, the eldest Officer or Colonel in course was to supply his room. But that is not in all Cases, a sufficient and full Answer; for sometimes Regiments of Horse, and Regiments of Foot, have made up one Gross; and though

though a Colonel of Foot has been the elder Colonel, yet in the Field, a younger Colonel of Horse, has claimed the right of doing it; and thereby Disputes amongst themselves have risen, when they should have only disputed against the Enemy. Besides, I have also known that the elder Colonel has not been so fit to command a Gross, as a younger Colonel has been; and the Soldiery also have known it, who will not be a little troubled to be led by one, who they all know was not so capable of that Honor and Trust.

Neither do all the inferior Officers, or private Soldiers, know the dates of every Colonels Commission; and if their own Colonel pretends to the Seniority, they will not desert him in his pretence, by immediately submitting to be led by, and obey another. But by the method I propound, these Uncertainties, and dangerous Disputes, will be avoided; else if they are ever run into, it may too probably be fatal. And since a General in the Field, may appoint on the death of a General Officer, who shall act in his place, till the King's pleasure therein be known, (which is usual enough ;) and in making this choice, acts not alwayes by the rule of Seniority, but by the fitness of the Person; and yet therein does no Wrong to an elder Colonel: I see no solid Reason why a General may not temporarily Nominate who shall command a Gross Body, in case he who did it, is killed, or disabled; especially in a day of Battel, when All is at stake, and when no Advantage ought to be lost in Nominating the ablest Person for the vacant Charge, lest thereby the Victory be lost.

I am fully of opinion that the greatest Captain that ever was, or will be, is not, or can be, of himself sufficient to redress all Disorders, and lay hold of all Advantages, in an instant, when Armies are once engaged. The utmost he can do, is to choose well the Field of Battel; to draw up his Army according thereunto, to most Advantage; to give his General Orders, and to give the best Orders wherever he is in Person; but he cannot be *Ubiquitary*, nor send Orders to every place timely enough, to have them obey'd successfully. And therefore 'tis indisputably necessary, that he have under him, expert chief Officers, at the Head of all Gross Bodies, who may supply what it is impossible for him singly to command;

mand ; for he can be well obey'd but to the time he sends his Troops to the charge : after that, those only who lead them, and are with them, can actuate them according to the General Orders, or as the occasion requires, which those under him must have the judgment to lay hold of, as it were in the twinkling of an Eye ; so short are the moments to acquire the Victory.

Together with those chief Officers who command *Tertia's*, and Wings of Armies ; it is of high importance to have an able General of the *Artillery*, and that he have sufficient Officers under him ; for the Carriages well disposed, and the Cannon early and well planted, do not a little contribute to the Victory ; and if it may be, I would never have the Cannon fired, so as the Bullet, if it take place, can only carry away a File ; especially also, now our Files are so shallow ; but alwayes to point your Artillery so as the shot may rake thwart the Squadrons and Battalions of the Enemy ; and then it does not only do execution while it has any force, but also disorders whole Bodies of Infantry, or Cavalry.

VIII. An eighth thing is, to place alwayes your best Soldiery in the Wings of your Army, and to begin the Battel on that side where you judge your self the strongest, and your Enemy the weakest ; and with those Troops to advance as expeditiously as you can, (without disordering them) while the rest of your Army moves as slowly as they may. For if your first Impression be successful, you may fall into the Flank, and part of the Rear of your Enemies, while the Residue of your whole Army is marching to attack them in the Front ; but then the motion of your Army must be quicker, as soon as ever they see your advanced Wing is successful. I would recommend to Practice one thing more, which I have on tryal found very beneficial ; it is this : During the motion of your advanced Wing, to edge it by degrees, and insensibly, towards the outward Flank of that Wing of the Enemies which you go to charge ; so as by that time you mingle, you may outwing them, and thereby attack them at once in Front, Flank, and Rear, if he has omitted to cover that Flank ; And therefore to begin the Battel with that Wing of yours, which is the strongest, is not

only most adviseable, but also to place your best men in that Wing of yours, which is opposite to that Wing of his, which has the Flank of it uncover'd; if by neglect, or want of time, or means; either of his Flanks are not secured; he have known great advantage obtain'd thereby; and if your Enemy be not very timely aware of this, it may more than likely contribute considerably to win you the day. I mention very timely aware of this, because if he discover not your design until you are on the Point to execute it, it will be too late to prevent it; since no alteration can be made when you are ready to join, but it will, in all likelihood, be ruinous to him who in that juncture of time shall attempt to make it. When I mention your beginning the Battel with that Wing in which you have placed your valiantest Soldiers, I intend thereby, that the second Line of that Wing shall advance as well as the first; else, while you fall in the Flank and Rear of your Enemies Wing, his second Line may fall into the Flank and Rear of as many of your first Line, as are so employed; unless your own second Line be ready to prevent it; and to improve all the Advantages which your first Impression shall give you.

The placing the best Men in the Wings of an Army, is very ancient, and seldom has been omitted; but to the loss of those who were guilty of such Omission; the Reason is, the Troops on your Wings are not wedg'd in, as the Troops in your main Battel are; but are at liberty to take all advantages that by accident, or by the ill conduct of your Enemy, or by your own good, may be offer'd you; and you cannot so much as rationally hope to fall into his Flank and Rear, but by attacking one of his Wings; because you cannot overwing him, but only by falling upon one of his outward Flanks.

Hannibal, who was so excellent a Captain to win Victories, (though possibly not to make the best use of them,) at the famous Battel of *Cannae*, placed all his valiantest Men in both his Wings, and the worst Men in the midst of his Battel; whereby, when the *Romans* came to the Charge, (who had placed their choicest Legions in their main Battel) they soon pierced into the Body of *Hannibals* Army, which was what he designed they should do; for then with his

two Wings, in which were all his choicest Troops, he immediately encompassed the Romans, and totally defeated them. But at the Battel of Zama, or as some call it Nadagara, which he fought against Scipio, though the Fate of Carthage depended on the issue of that day, yet he totally altered the Order he had observed at Cannes, and lost the Victory; For at Zama he placed all his new raised Men by themselves, to endure the first Attack of the Romans; and of all his old Soldiers who had so memorably served him in his Wars in Italy, he made as it were an Army apart, and drew them up a few Furlongs, behind his new raised Africans, who were therefore soon cut in pieces, as his reserve Army was not long after; whereas if he had observed the like order of Battel at Nadagara, as he did at Cannes, he might have had the like success.

IX. The ninth thing is, To prohibit, under the severest Penalties, the absolute Chace, or the Pillage, until the Enemy is totally Routed on all sides; and then have those Troops only to pursue, which are expressly appointed for it, alwayes having Squadrons to march after the Pursuers as near and in as good order, as if they were going to the Charge; that if the Pursued should Rally, and Face about, you may have those ready to fall on, and break them a second time.

How many Victories seemingly won, have, in an instant, been lost, for want of due care, in these two Particulars of such high concernment, which therefore ought never to be omitted; Neither is there any thing which more encourages flying Enemies to rally, and fight again, than the seeing a disorderly Pursuit of them; for in such a Pursuit, all the advantage of the prevailing Party is immediately vanished, when the Chaced do but turn about; for such an evidence of restored Valor, too often daunts those who are to oppose it: Nor can any thing more deter the flying Party from doing that, than to see several Bodies in good order, ready to make them repent that confidence; and though brave Officers will not cease pressing, promising, and threatening their Men that flie, to Face about; yet the Private Soldier who sees those Bodies are ready to fall on them, conclude it is more dangerous to do so, than to run, and therefore are too often
deaf

deaf to all Oratory, or Menaces of that Nature; for the frightened Soldier, as well as the hungry Belly, has no Ears.

These Nine Particulars may not improperly be called *Maxims* in War, and therefore ought to be still practised before a Battel, in a Battel, and after the Enemy is Routed. I know many of the Ancients, and not a few of the Moderns have with much industry alwayes endeavored to gain the Sun and the Wind of their Enemy in the day of Battel, and doubtless both are very desirable to be on our backs, when they may be obtained without losing thereby more certain Advantages from the Nature of the Ground you are to fight on; For those are mutable, especially the latter, and the former is still in motion, so that no Precaution can ascertain the keeping of them when they are gotten; and therefore one must not lose the stable Advantages, in hope to gain the unstable; but if both may be had at once, they must never be neglected.

I shall now proceed to set down several other Particulars, which I hope will be useful to whoever has the Curiosity and Patience to read them.

V When an Enemies Army advances to raise the Siege of a place, which otherwise can hardly hold out longer; in my poor judgment, it is not adviseable to defend the *ordinary Line of Circumvallation*, but to draw out of it, and give the Enemy Battel, if your Men be as good, your Numbers as great as his, and that your Ground you fight on, be as fit for you, as him.

Some of the Reasons and Experiments which induce me to be of this Belief, I shall here express.

If the place be large which you besiege, your *Line of Circumvallation* must of necessity be many Miles about, for it ought to be out of the reach of your Enemies Artillery, else you will too much expose to the mercy of it, your Army that is lodged within it. All this Line must be equally defended, unless it be where the situation of it secures it self, or does it but thinly mann'd: for not knowing in what part, or places of it, he will attempt to force it, you must secure every Foot of it, which in consequence does so disperse your Army, that if he once enters, it will be impossible to draw

draw it together expeditiously enough to beat him out again; for as soon as ever he is gotten within it, he flings down immediately such parts of it as are near him; that the Squadrons and Battalions of his Army may come in, and they marching on the heels of each other, will certainly be imbattelled, and rout all the small Forces which may be in readiness near that place; and will also hinder those further off from embodying. Besides, if the place besieged is seated on an unfordable River, or that may be so in a rainy season, (as most commonly considerable Fortresses are) 'tis not to be doubted but you will cast over it Bridges of Boats, or fixed Bridges, that you may surround the place, (which else might with safety be every day or night relieved) and thereby also have free intercourse between both parts of your Army which are divided by the River; and 'tis as little to be doubted, but as soon as he has enter'd your Line, his first care will be, to make himself Master of all those Bridges, that such as are, as it were, in a Pound, may not escape; and that having defeated half your Army, he may march over them to destroy the rest, who seem then but too ripe for Ruin, when half their Friends are cut off, and all their Enemies are marching against them, and the Besieged, by their Sallies, ready to assist them.

This seems to me to be the usual, and fatal Consequence, if your Enemies Army entring your ordinary Line of *Circumvallation*, which being most frequently but a Parapet with a narrow and shallow Ditch, is but too easily forced, and indeed not to be held tenable of it self; If the Forts, Redoubts, and other Works which flank it, and which are usually raised a Musket-shot from one another, with many hands to man it, did not, in a good degree, secure it.

But those Works usually are such slight things, especially when an Enemy is entred, that few of the Resoluteest which are posted in them, to guard them, stay to do it after; for commonly the attempt on such a Line is made a little before the break of day, that the Obscurity may the less expose the Assailants, while they advance to storm it; and that the day-light, may help them soon after they are gotten in, to improve all advantages which are offer'd them thereby; and 'tis in this twilight ordinarily, that those in the Works to de-

send the Line, steal out of them, when they find the Enemy is entred, as those who then expect more safety from their feet, than from their hands.

He who resolves to force an ordinary *Line of Circumvallation*, either does it without any noise, or else alarms it round; and often most warmly, where he means not to make his attempt; while small Parties are doing this, in the dark he is drawing all the rest of his Army to the place, or places, (which still are near each other) where he intends to make his real impression, and does it with that silence, as the Defendants cannot discover his intentions, till usually it be too late successfully to oppose them.

I must therefore frankly acknowledge, since the defences of such a Line are so inconsiderable; since the equally manning them so dissipates the Army which does it; since it cannot hopefully be defended otherwise: And since it cannot be safely defended that way, I have almost wonder'd at those, who rather choose to make good such a Line, than to give Battel to the Enemy who comes to raise the Siege. This being a more hopeful thing, a more glorious action, and whose Consequences, if Success attends the Besiegers in the Field, will be much more great, than to defend the Line can possibly be; for thereby you can at last but carry the place: But by a Battel gain'd over the Relievers, you usually carry the Fortress but as one of the many good effects of getting the Victory; for few, if any Towns, hold out, after the relief sent them is defeated.

What I have said on this Subject, proceeds from my taking two things for granted; the first is, that the *Circumvallation Line* is after the usual and common Form; that is, but a Parapet, and that the Works which defend it are very inconsiderable either towards the Field, or within the Line.

The second is, that the besieging Army has as good Men and more than the Relievers bring; for 'tis necessary he leave his best and most advanced Works well guarded during the Battel, both to preserve them against his return with Victory, as also by them to hinder the Besieged from sallying on their backs, while they are fighting with the Relief; but indeed if the Line need not be of much circumference; if it be high,

high, and the Graft large and deep ; if your Army is not strong enough both to fight the Enemy in the Field, and to secure at the same time your most advanced, and most necessary Works ; if the place you must fight in, is an open Countrey, and that your Enemy does much exceed you in Cavalry ; or if it be an inclosed, incumbred Countrey, and he does much exceed you in Infantry ; if you have Victuals, and Forage enough, within your Line, and your Enemy have little with him, or without it ; so that he can stay but a few dayes, and that you may probably in fewer dayes take the place by Assault, or have it surrendered by Capitulation. I say in a Case thus Circumstantiated, I would not admire a General would justifie his Line ; but rather admire, if he should draw out of it, to give Battel to the Relievers.

I shall therefore now instance some Examples of famous Captains, who have kept within their Lines of Circumvallation, when the Enemies Army came to relieve the Besieged, and in them have resisted their Attempts, and as a consequence of that success, have gain'd the places.

I shall also give Examples of some other great Generals, who have chose rather to draw out of their Lines, to give the Relieving Army Battel, than to stay within their Lines, and in them to oppose the Relief.

I shall then enumerate some of the many Reasons, why I believe such various, and opposite methods, have been practised by such celebrated Chiefs in War ; nay, sometimes by the very self-same General ; though I must say, I find many more Examples in Histories, and in my own time, for drawing out of ordinary Lines of Circumvallation to give Battel to the Relievers Army, than for opposing the Succors by continuing within them.

Cesar, who I esteem the famousst Captain of the Universe, in the famousst of all his Sieges, that of *Alesia* in France, chose to stay within his Lines to oppose the Relief of the united *Gauls* ; or at least fought them in the Field only with his Cavalry, which on occasion he drew out of his Lines, and in which Services he owns his *German Horse* did him most service ; who have been famous, for their Valor, even as long as Historians have recorded any great Actions of War, in which that Nation had a share.

But

But because this memorable Siege is so minutely, and particularly related by *Cæsar* himself, and does thereby imply, he thought it even his *Master-piece* in that kind; and since by his Conduct there, the most eminent Captains of the Moderns, as I have been credibly informed, have model'd the design of their Sieges, viz. the Prince of Orange, the Duke of Parma, and the Marquis of Spinola, in their great Sieges of *Maëstricht*, *Antwerp*, and *Breda*; I hope those who read this Book, will, at least, judge me worthy of their Pardon, if I stay a little in the Relation of this prodigious Siege of *Alesia*; since also no less an Author than *Paterculus*, when he treats of it, has these very expressions, viz. *So great things were done at Alesia, that they might seem too great for any Man to attempt, or any but a god to effect.*

Cæsar having defeated the Cavalry of the *Gaules*, whose Army was led by *Vercingetorix* (a Person worthy to command a National Army) *Vercingetorix* shuts himself up in *Alesia* with 80000 of his chosen Soldiers; sends away the Reliques of his Cavalry, (as useless in that Siege) and requires all the Nations of the whole Countrey of *Gallia*, to come to his Relief, which he conjures them to hasten, having but 30 dayes Corn in the Town to feed his Men, which in all probability, by the frugallest management, and the carefullest distribution, could not suffice for above six Weeks.

Cæsar immediately resolves to besiege this great General, and greater Army; in hope to reduce both, before the Relief could come; yet admirably well fortifying himself against the Relief, if it should come early enough to succor the Besieged.

What these stupendious Works were, both as to the Circumvallation to oppose the Relievers, and as to the Countervallation to resist the Attempts of the Besieged, you shall have briefly related, and from his own Commentaries, wherein he writes, viz. *That he made round about the Town, a Ditch of 20 foot wide, and 20 foot deep, with upright sides, as broad at the top, as at the bottom; 40 foot behind this Ditch he made his first Works; behind them he made two other Ditches of 15 foot in breadth, and 15 foot deep, and behind all these he made a Ditch 12 foot wide, and 12 foot deep, with a Rampard, and Parapet thereon, and erected Towers round about the whole Work,*

Work; at every 80 foot distance the one from the other; besides the Palisadoes, Stockadoes, and those other Fortifications; which he comprehends under the name of Cippi, of which there were five Ranks; and of Stimuli, of which there were eight Courses or Rows, round about his whole Camp. So that it seems to me, none of his Enemies could come to attack his Works, but must run on several Ranks of sharp Stakes, or into Holes, or on Galthrops, which were also covered, or hid with Branches of Osiers. *Cæsar* further adds, That after the inner Fortifications were thus perfected, he took in 14 Miles of Circuit, and made the like Fortifications in All Points against the Enemy without, as he had done against the Town: which are his own words.

These are the first Lines of *Circumvallation* and *Countervallation*, which I ever read of in any Siege; and I fully believe the making of both as ordinarily they are made in our modern Sieges, when we equally apprehend the numerous Sallies of the Besieged; and the strong Attempts of the Relievers, was taken from this Model of *Cæsars*; but the Copies are very much short of the Original as to the quantities, and qualities of the Lines; so many prodigious Works of 11 Miles about towards *Alesia*, and 14 Miles about towards the Armies which came to succor it; with the several Rows of Stakes, Holes in the Ground, and other Traps to destroy and catch the *Gauls*, I think is admirable, and to perfect them, one would judge, must be the labour of some years, though a vast Army undertook it; whereas indeed as I believe it could not possibly be the labour of many days: For though *Cæsar* mentions not how many days it was before the Relieving Army came; Yet since he expressly says *Vercingetorix* found scarce 30 days Corn in the place, when he shut up himself in it, with his 80000 chosen Men; and that he surrendered it not, till the Relief had made three Attempts to succor it; it is undeniable 'twas not Famine only which made *Vercingetorix* yield: And therefore it could not be many days in which *Cæsar* began, and perfected all these wonderful Works.

This being the true Narrative of the strength of his Lines, both towards the Town, and towards the Field; it is not to be thought strange he elected to withstand his Enemy

within such Fortifications, and that he repulsed their General Assaults, though three times made ; nor can any one reasonably believe *Cæsar's* Army could have justified 11 miles of a Line against 80000 men within the *Countervallation*, and of 14 miles against 248000 men without the *Circumvallation*, had not the multiplicity of his Works, the one within the other, and the strength of them every way, made them defensible enough, for the paucity of the hands which were to justify them.

Yet the finishing of these amazing Works were not the onely Labours of *Cæsar's* Army ; but to do the constant Duty, Night and Day, of the Camp, especially most strongly until the Line of *Countervallation* was finish't ; the providing not only Forage, and Victuals, from hand to mouth ; but also to lay in besides, Magazines of both, for 30 days, which *Cæsar* writes, by his Orders, were done : That thereby, as I suppose, he might not be necessitated to stir out of his Lines when the Relief should Incamp it self close by them, which else might have hazarded the cutting off his Army by piece-meal going to Forage, or forced him to have come to a decisive Battel, whereby all his Labour on his Lines would have been needless ; as also by carrying into his Leaguer what was in the Villages, and Countrey Neighbouring on his Works, to deprive his Enemies Army of all sustenance but what they brought along with them, or were daily to be fetch'd by them to their Camp, from a great distance.

And lastly, to have still in his Leaguer, more Victuals than the Besieged could then have within the Town, thereby to compel the Relieving Army to attack those almost unconquerable Works ; or the Town to surrender for want of Food in the sight of the Army which came for the Succor : These necessary performances, together with his often fighting against such Forces, as almost hourly, Night, and Day, made numerous Sallies, and were obliged to do it, both to harass, and lessen *Cæsar's* Army, and to retard the finishing of his Works ; which when compleated, would render it highly difficult, if possible, to relieve the Besieged ; I say, and I think with reason, all these Economies of War, were at least as difficult in the Actings, as the making those laborious Fortifications ; Yet all were to be done, and done at one and the

the same time ; and in so short a space, that I scarce know to which of the two, my Admiration is justlier due.

At length the Relieving Army appear'd, which consisted of 248000 men, as *Cæsar*, who condescended to be the Commissary of their Musters, reckons them to be ; and also writes, how many every State of *Gallia*, did particularly send ; so that at once he was to withstand 320000 of his Enemies ; and which was more , to fight with them at the same time, when they attacked him in Front and Rear.

This formidable Relieving Army was led by four Generals, viz. *Comius*, *Veridomarus*, *Eporedorix*, and *Vergesilaunus* ; All great Captains, and accustomed to make War even against *Cæsar* himself ; where they could not but have learn'd much, having to do with such a General, and yet for many Years continued the War against him ; and one of them, viz. *Comius*, had learn'd the Rudiments of War, under *Cæsar* himself, and acquired so much Honour in serving the Romans, that *Cæsar* rewarded him with the Principality over the *Morini*.

The *Gauls* seated their Camp on a Hill half a mile from *Cæsar's* Works, and sent their Cavalry into a Plain under it, and their nimblest Archers conceal'd behind their Troops.

Cæsar makes his Cavalry march out to fight them, lest the *Gauls*, by having their Cavalry unsought with, even under *Cæsar's* Works, might grow too insolent, and his own Army be intimidated. The Roman Horse were worsted by the help of the *Gauls* Archers ; but *Cæsar's* German Horse Relieved them, Routed the *Gauls*, and cut in pieces their Archers, and then all *Cæsar's* Troops return'd within their Line.

The *Gauls* made three several General Assaults on *Cæsar's* Camp, the first by Day, the second by Night, and the third at full Noon, *Vercingetorix* every time Sallying out at the same hour with his Army : In these three Attacks all that Valor, Skill, and Industry could perform on both sides, was not omitted. Some Particulars I shall enumerate ; the *Gauls* finding the Rows of Stakes, and Holes, and the *Galtborps*, destroy'd many of their Men, flung up so much Earth over them, as covered them ; and thereby made them useless to the

the *Romans* : Then filling their Ditches with Fagots, Hurdles, and Earth, raised the Outside, on which they went to the Assaults, higher than the Line they assaulted, and so went on advantageous Ground to the Attack ; and *Cæsar*, when he found his Men distressed in Front, by the Enemies overnumbring him, and fighting on equal Ground, would often command his Cavalry, sometimes his Legionary Infantry, to sally out of his Line, and to fall on them in the Rear, whereby he routed them.

The last dayes Attack, seem'd several Battels, rather than one General Assault, such great Bodies fighting at once both within and without the first Lines towards the Field, and towards the Town ; for the *Gaules* having discover'd the weakest, or more properly the least strong part of *Cæsar's* Line, while all the residue of their Army were assaulting the rest of the Works, *Vergesilaunus*, (who was *Vercingetorix's* near Kinsman) in the obscurity of the preceding Night, had marched behind a Hill, and concealed himself there with 60000 select men ; who at Noon-day (when the *Romans* were with all their Forces defending their Works both against the Besieged, and *Cominus*, &c.) assaulted them unexpectedly, entred the Line, whose Ditch they had filled, and with many shouts, daunted *Cæsar's* Soldiers, as he himself confesses. But *Cæsar*, at last, by the Valor and Expertness of his men, and by his excellent Conduct, relieving them in all parts, where they were oppressed, and leading them in Person, to many Charges, was Victorious, and Chaced the *Gaules* to the very Works of their Camp, and to the Gates of the Town ; and adds, *If his Soldiers had not been quite spent with that dayes hot Service, few of all the Gaules had scaped.* They lost in that last dayes attempt, above 60000 men, so that despairing to perform what they came for, they did that Night abandon their Camp ; and many were kill'd by *Cæsar's* Cavalry, who pursued them in the obscurity ; and the next day *Vercingetorix* capitulated, and yielded ; he himself gallantly mounted, and armed, at all points, having first leisurely rid round about the Chair of State in which *Cæsar* sate to receive him, alighted off of his Horse, and, as an evidence of his being Conquer'd, disarm'd himself, and then went and sate down on the Ground at *Cæsar's* feet, without speaking one word. Some

Some of those many Reasons which induced *Cæsar*, in my opinion, to continue within his Lines, and not to give the Enemy Battel in the Field, I shall here set down.

I. He could not shut up in *Alesia* a much greater Army than his own, without making very strong Lines of Countervallation against it.

II. Having made these wonderful Lines, and knowing of the vast Relief which was certainly hastening, to succor the Besieged; he, with so small an Army as his own, (which probably could not consist of above 30000 Foot, and 6000 Horse, for he never had above 10 Legions at once in all *Gallia*) could not reasonably hope both to keep in *Vercingetorix* with 80000 chosen men, and fight against *Comius*, &c. with 248000 good men, unless by prodigious Works he could supply, what he wanted in Numbers of men, and also by so posting his Army between his Lines of *Circumvallation*, and *Countervallation*, as to be thereby ready to resist both ways, and often, with the same Reserve, Battalions, and Squadrons. For whatever *Justus Lipsius* computes, That the space between these two Lines must be 5000 Foot, yet in reason I am fully convinced they were much nearer each other, for else they could not answer the end for which they were made; since no Squadrons of Reserve can timely answer both ways, a distance of a Mile, much less do it as often as need requires; and our modern Lines of *Circumvallation* and *Countervallation*, (which are but Copies after *Cæsar's* Original) are generally no farther asunder, than to leave space to Camp the Army in, and that the Battalions, and Squadrons, may be drawn up between them so near, as timely enough to relieve either, or both Lines; and to me 'tis inferredly evident, that *Cæsar* had this in his prospect, by acknowledging he was necessitated to run that part of his Line, which *Vergesilaunus* assaulted as the weakest, on the hanging of a Hill; for had he ran it on the top of the Hill, it would have taken up too much Ground; that is, have made his Line of *Circumvallation* too far distant from his Line of *Countervallation*, and thereby rendered the Reserve Battalions between both Lines, useless to one, or both.

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III. *Cæsar*

III. *Cæsar* seeing that *Vercingetorix*, not designedly, but compelled by necessity, had cast himself into *Alesia* with 80000 chosen men; for the *Gaules* Cavalry having been defeated the day before by the *Italian*, and *German*, on which Cavalry of the *Gaules*, *Vercingetorix* most depended, and losing their support, despaired of retreating in the face of the *Roman* Horse, and of the Legionary Infantry, had no better Game to play, than to get into *Alesia*, which was very near him; *Cæsar* therefore had abundant reason to believe the Town had not wherewithall long to feed so many mouths; for I conclude it was not a Magazine of the *Gaules*, since *Cæsar* particularly mentions, that the *Manubii* by whose interest only, *Vercingetorix* was admitted into it, were by him expelled out of it; the longer to enable his Army to eat: which sure he would not have been so ungrateful to have done, if they had been his Garison, and also had not meer want of Corn constrained him to it; I say, since *Cæsar*, by their want of Corn, had probable hopes to reduce them by Famine, before their expected Relief could come, (for a League of many petty States are not overwarm to adventure their Forces to relieve the Defeated, but are more inclined to make their Peaces apart) and therefore having shut them up with prodigious Works, he was afterwards compelled, as it were, to make as vast Works against the Relief, when he foresaw the Besieged could hold out till the Succor came; for else all he had thitherto done, had been uneffectual to answer his final end; since the full manning of those Lines against the Besieged, must take up too many of his small Army, to leave him enough Forces to fight the vast Succors in the Field; and therefore he resolved to continue within his Lines.

IV. Since he could lay up one months Magazine of Vi-
 ctuals, within his Works, which was more than *Vercingetorix*
 could have in *Alesia*, after *Comius*, &c. came with the Relief;
Cæsar had all the reason imaginable to justifie his Lines, and
 not to draw out of them, to give his Enemy Battel; for he
 might justly believe, that if the Relief had hopes of cutting
 him off from all Provisions which he had not got into his
 Camp

Camp before their coming, they would only design to block him up within his Works, and then he might sooner starve *Vercingetorix*, than *Comius*, &c. could starve him : And by having ruined the flower of the *Gauls* Forces, and their *Generalissimo*, he should be the better able to fight the rest in the Field, when the Consumption of his Magazines within his Camp, necessitated him to issue out of it.

Or if the *Gauls*, soon after their Arrival, should endeavor to storm, and force his Camp on the Field-side of it ; and *Vercingetorix*, at the same time, on the Town-side of it, he might be the better able to resist, and repel both, being within such Works ; so that which soever way they acted, *Cæsar* had great cause to keep within such stupendious Works ; by the help of which, he, at last, defeated his Enemies Field Army, and reduced to his mercy their besieged Army ; and did it both at one and the same time. Nor had *Cæsar* left *Comius* and the Relievers, any probable hopes to besiege him successfully, while he was besieging *Vercingetorix*, could he have been fed within the Town longer than 30 or 40 dayes ; for *Cæsar* had furnished his Camp, for one month, and had thereby brought into it, all the Provisions which were near it in the Countrey, and (more than probably) destroyed, by his Cavalry, all he could not bring within his Line ; and when 248000 Soldiers, with the many useless mouths (as to Fighting) which in the best regulated Armies attend such Forces, must be fed, and all this Victual and Forage must be brought far off ; it would have been very difficult, if possible, to have supplied them for any considerable time with Food.

I beg the Readers pardon that I have thus largely insisted on this one Instance, which in some degree to repair, I will almost but name the subsequent ones.

The Example of *Cæsar*'s keeping within such excellent Lines, and in them resisting, and defeating the Relief, being very ancient, I will give the Reader a recent one, to evidence that in parallel Cases ; equal Success has been the Consequence.

Henry, Prince of *Orange*, a most excellent Captain, did in
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the Year 1632. besiege *Maestricht*, the *Spaniards* apprehending they should not be able with their own Armies onely, to force his Lines (which were as strong in needful places, as the very Fortifications of the Town) prevailed with the Emperor to join with them for that Service ; the *German* Army, commanded by Count *Papenheim*, a brave and adventurous General ; and to heighten his endeavors to relieve the place, he was promised 100000 Crowns, and the Order of the Golden Fleece, if he effected it : But the Prince of *Orange* had made such Lines about his Camp, and against the Town, and so well furnished his Leaguer, as thereby he resisted all their Assaults ; and when the Relief drew off, *Maestricht* Capitulated, and Surrendred.

The Reasons which, in my poor opinion, did engage the Prince of *Orange* to stay within , and justifie his Lines, were :

That his Works were almost as tenable as those of *Maestricht*.

That his Enemies did greatly exceed him in Cavalry ; and the Countrey about it was Champion.

That he was well furnished with Horse-meat and Mans-meat within his Leaguer.

That his Enemies Armies were ill furnished with both.

That he knew *Papenheim* could not long be spared by the Emperor ; and that the other Commanders, without his help, durst not attempt to force such extraordinary Lines.

And that if he had raised his Siege, and retreated before the Enemy advanced, he had not only lost all the Blood, Treasure, and Time, which were consumed in this Siege, but also had given the Enemy leisure, and means, to repair those defects in the place, which his knowledge of, had been a chief invitation to him to besiege it.

I shall now Present my Reader with two remarkable Instances, of famous Generals, who even in our own memories, chose within an ordinary Line of *Circumvallation* to oppose the Army commanded to relieve the Besieged , and were

were thereby defeated, and forced hastily to abandon their Design.

The *Archduke*, assisted by the Prince of *Conde* now living, besieged *Arras*, and raised one of the ordinary Lines of *Circumvallation* about it; Monsieur *de Turenne*, assisted by His Royal Highness the Duke of York, came to relieve that place.

The *Archduke*, and the chief *Spanish* Commanders, resolve to justify their Line; but as I have been assured, the Prince of *Conde* was absolutely, either for giving the *French* Army Battel, or retreating before the Relief was near; this wholesome advice was not followed.

His Royal Highness and Monsieur *de Turenne* assault, and carry the Line, being themselves two of the very first which entered it; and doubtless had intirely cut off the *Spanish* Army, had those Bridges been immediately secured by the *French*, by which the *Spaniards* held communication. I was positively told by a Person of great Honour who was present, that His Royal Highness, whose judgment in War in so green an Age, was almost as much admired, as his Valor, exceedingly pressed to have it done; which being a while omitted, the Prince of *Conde* in Person, with almost incredible diligence, got together many Squadrons of Horse, then caused their own Bridges to be destroyed, and with his usual Conduct, his Sword in his hand, made the Retreat, and saved the residue of that broken Army.

In what the Prince of *Conde* then did, we may learn one very observable Lesson; That a great Commander, when a fatal mischief is fallen into, which his advice, had it been followed, would probably have prevented, is notwithstanding obliged to hazard his Person, and employ his best Conduct, to make the Loss as easie as possibly he can, to his own Party.

A second Instance of the like ill Success, by pursuing the like method, is in the same Monsieur *de Turenne's* besieging *Valenciennes* jointly with the Mareschal *de la Ferte*; and resolving within an ordinary Line of *Circumvallation*, to oppose the *Spanish* Relief, led by Don John of *Austria*, who

forced the Line on the *Mareschal de la Ferte's* side of the River: As soon as this was known to *Monsieur de Turenne*, he instantly broke his own Bridges over it, sent away his Cannon and Baggage, and marched after it, as expeditiously as he could; and therein acted the best part, which in such a Case, was left him to manage.

These two Instances, so fresh in our memories, seem to me no ill Evidence, That whatever Besieging General shall stay within such an ordinary Line, and of great Circumference, when an Army comes to attack it, 'tis great odds but he suffers thereby considerable loss and disgrace.

By the *French* forcing such a Line justified by the *Spaniards* before *Arras*; And by the *Spaniards* forcing such a Line justified by the *French* before *Valenciennes*; it looks, as if the Victory were not won so much by the Conduct and Valor of either Army, as by the Difficulty of defending such a Line; And therefore whatever Nation does play the like Game, will, too probably, sustain the like Loss.

I might particularize several other Examples of this Nature, even within our own Times, but, to avoid cloying my Reader, I purposely omit them; and will rather employ his patience, in giving him some instances of great Captains, who chose to quit their ordinary Lines, to give the Relieving Army Battel, and were successful therein.

Maurice, Prince of *Orange*, in the Year 1600, had besieged *Newport*, believing that the mutiny of many of the *Spanish* Forces, would disable the *Archduke* from relieving it; but those Mutineers being unexpectedly pacified, and the *Archduke* marching with his Army to relieve the Place; that Prince, though always loth to come to a decisive Battel, yet in this Case, having had onely time enough to make an ordinary Line of *Circumvallation*, quitted it, led thereunto by his own judgment, and the concurrent advice of our Noble Sir *Francis Vere*, and advanced to meet the *Archduke*; gave him Battel in the open Field, won the Victory, with 116 Ensigns, and 5 Standards; and perhaps had also won *Newport*, had he in earnest again besieged it, which he forbore

bore to do, partly because *la Burlotte* had cast into it three Regiments with great Conduct and Celerity.

In the Year 1633, the Duke of *Lunenburg*, with *Milander*, and Mareſchal *Kniphaufen*, had beſieged *Hamelén*, a ſtrong and conſiderable place, ſeated on the River *Veffor* in *Germany*; and having reduced it to great Wants, the *Germans* reſolved to relieve it; and Rendezvous'd a great Army for that end, under the Comand of General *Merodes*, and Count *Cronesfield*. The Beſiegers on their Enemies Army drawing near, left ſome Regiments for the defence of their moſt advanced Approaches, and to hinder the Garriſons ſallying during the Battel; and with 9500 Horſe, near as many Foot, with 42 pieces of Cannon, Field and Battering, went to fight the Relief, which conſiſted of near the like Numbers. The Battel was long, and bloody, it laſted above 9 hours; but at length the Proteſtant, and beſieging Army, got the Victory; the marks whereof were, the Duke of *Lunenburgs*, *Milanders* and *Kniphaufens* taking 50 Enſigns and Standards, 800 Wagons, 13 Cannon, 2000 Priſoners, and *Merodes* the General, who ſoon after dyed of his Wounds, as 5000 of his Men did on the ſpot: The Victorious immediately returned to the Siege, and the Garriſon ſoon ſurrendered.

In the Year 1638, Duke *Bernard Weymar*, on a ſudden, ſits down before *Rhinefield* in *Alſatia*, and reduces it almoſt to the laſt Extremity; the *Imperialiſts* ſend Duke *Savelle*, and General *John de Wert*, with an Army to relieve it. Duke *Weymar* following his own ſolid Opinion, and being ſeconded therein, by the advice of *Henry*, Duke of *Rohan*, one of the greateſt Captains of that Age, (who went a Volunteer to that Action, to wipe off ſome Calumnies which his Enemies had unjuſtly laid to his Charge) quits his Lines to give the Enemy Battel, but leaves ſome Regiments of Foot, and Troops of Horſe, to juſtifie his Works, and beat in the Beſieged, if they ſhould ſally: *Savelle* and *Wert* accept the Battel, and, after a ſharp diſpute, *Weymar* got the day, cuts in pieces the beſt of the *Imperial* Troops, takes all their Baggage and Cannon, and Duke *Savelle*, General *Wert*,
and

and *Spureter* Prisoners ; then returns to *Rhinefield* , which soon after surrendred unto him.

Monsieur de Turenne, a few Years since, besieged *Dunkirk* , *Don John* of *Austria* came with an Army to relieve it ; *Monsieur de Turenne* abandons his Line, gives *Don John* Battel, wins the Victory, and as a consequence of it , had *Dunkirk* yielded to him ; in which Battel our Countreymen did great Service.

King *Henry* the Great of *France*, when *Alexander Ferneze*, Duke of *Parma*, and *Charles* Duke of *Mayenne* came to the Relief of *Paris* with the United Forces of the League, and of *Philip II.* of *Spain*, would not stay within his Lines, but drew out of them, to give his Enemy Battel ; which those two excellent Captains would not accept of, but, by a rare Conduct, having forced *Lainy* in the fight of the *French* Army, by that way, flung the wanted Relief into *Paris*.

For whoever does well understand the Trade of War, will never put Affairs to the greatest hazard, when they can be carried on with the less.

In our sinful Times in *England* , when *Robert* Earl of *Essex* marched to the Relief of *Glocester*, his Highness Prince *Rupert*, whose high Genius in War, admirable Valor , and great Judgment, has made him justly to be esteemed both by his Friends and Enemies, a General of the very first Form, would not stay in his Works before that City, but leaving most of his Infantry in them, advanced with his Cavalry to meet the relieving Army on the *Downes* ; which doubtless he had defeated, as several of the chief Officers of it have owned to me, had not some Brigades of the Earl of *Essex's* Infantry, done almost Wonders on that occasion.

These, and many other the like Instances, make it seem to me, even a kind of Maxim in War, That a besieging Army, which has onely an ordinary and vast Line of Circumvallation to cover it, ought not to stay in it ; but to give the Relief Battel, or raise the Siege before the Relief be too near ; it being, in my poor opinion, altogether unadviseable,
to

to stay as if you would fight, when you are resolved not to do it ; for whatever Army retreats from another, thereby evidences that he apprehends his Enemies ; which highly encourages them, and does not a little deject your own Forces ; who therefore are the more prone to be disorder'd, if vigorously push'd ; and to be disorder'd, is almost the next step to being defeated ; so that early Retreats, where the Resolution is taken not to fight, is most eligible ; for why should you hazard to be engaged , when you resolve to avoid it ?

Though I cannot say that the besieging Army quitting an ordinary Line, has alway had success in giving, or offering Battel to the Relieving Army, (for that depends on many Circumstances, and unforeseeable Accidents) yet the Arguments appear to me very strong for the doing of it ; and Actions ought not to be judged of onely by the Event, but by the Reasons which make them to be undertaken.

I cannot observe in all the Wars which *Cæsar* made that he committed any one oversight so clearly deserving that name, as when at *Dirachium*, he enclosed, with a prodigious Line for its circumference the Army of *Pompey*, which was much greater than his own, and consequently might, when he would, force his passage in one part of it, because all *Cæsar's* vast Line was to be equally mann'd and provided for, (where Nature made it not inaccessible) which could not but disperse his Troops to such a distance, as render'd them not only useless when *Pompey* should attack any one place of them from within with his whole Forces, but exposed them to be cut off by parts, when *Pompey* got out ; So that it was believed the War had that day been ended, had *Pompey* been a General who had known how to improve a Victory : And if *Cæsar*, whose own Conduct was so excellent, whose Soldiers were so valiant and expert, as he himself writes, *That their knowledge and experience was such as they could prescribe unto themselves what was to be done as well as any Commander could teach them* ; could not, on tryal, justify so vast, yet weak a Line, when it could then only be assaulted from those within it ; how should any other General rationally hope to justify an ordinary Line, and of great Circuit, when it is at once vigorously attempted both from the Field, and from the

Town ; for the strongest Sallies from the Town, are, when the Relief fights the besieging Army. Experiment might teach what Reason did not.

But lest some who peruse this Treatise, may think I have forgot how much I have already spoken of the great advantages which are derived from an Armies being intrenched, though but as it were within a Parapet well flank'd, by my now writing so much against an Armies trusting to an ordinary Line of *Circumvallation*, I shall desire him to consider, there is a very great difference between an Army which is posted in an Intrenched Camp, and one which is posted within such a Line of *Circumvallation*, though the Works should be of equal strength. For an Army intrenched lodges so compactly, and close, and has comparatively so little Ground to defend, and no Enemy to attack them from within; that all the Forces of it are at hand in a moment, to justify their Intrenchment against all Assaults from without; but an Army within such a Line of *Circumvallation*, is necessarily so far dispers'd, to make good every part of it, not knowing where the real Impression will be made; and has so many Troops, only to attend the Sallies of the Garison; that if once the Line be entred, it is impossible to bring Forces from such remote distances, so expeditiously to drive them out, as the assaulting General can bring his in, to prevent all considerable Imbodyings to resist him; without which, it were unadvisable for the defending General to design it, and ruinous to attempt it.

Having thus set down my own opinion for giving Battel to a relieving Army, rather than to oppose it in a large and ordinary Line of *Circumvallation*, with the needful Cautions to be observed in choosing to do it; and having both by the reason of the thing, and by examples, endeavor'd to manifest why my opinion therein is taken up; and having also given my Reader nine general *Maxims*, which are to be observed in giving Battel; I shall now close this Chapter, and this Tome, with some other Particulars, which, in my belief, are not unworthy his perusal; and seem to me fit to be observed, before, in, and after a Battel, as being built on Reason, or Experiment.

Before

Before the fighting of a Battel, *the Field Mark*, and *the Field Word*, ought still to be given to every one of your men; the first is, That you may be able to distinguish afar off, who are Friends, and who are Enemies; the second is, That when you come to Rally, you may make your Rallyment of those onely who are of your own Troops; which else might consist partly of your Enemies men, who might, to shelter themselves, get into your Ranks, as if they were of your Army: And thereby not only preserve themselves, but also when you fight again, contribute to destroy you; by killing some of your Officers which lead you on, or by breaking your Ranks just as you were going to Charge, and thereby also save themselves when they had done you all the mischief they could; For in the hurry and confusion of a Fight, private Soldiers must have some very apparent *Field Mark*, to enable them to distinguish Foes from Friends, else much mischief may too likely ensue.

And because such *Field Marks*, wherever you place them, are not still visible on all sides of the Head or Body of every one who wears them. *The Field Word* is also given; For it often happens that in a Battel, *the Field Mark* is by accident lost by many out of their Helmets, or Hats, and then if they had not *the Field Word*, they might be kill'd by those of their own Party who knew them not personally.

Besides, *the Field Mark* of each Army is seen by All of both Armies before they engage, and the matter of it, being to be had in all places by private Soldiers, (as a green Branch, a piece of Fern, or a handful of Grass, or a piece of white Paper, &c.) If you Rout your Enemy, he may, while he is pursued, take off his own *Field Mark*, put up yours in the stead of it, and so scape, if not do you hurt; But *the Field Word* he cannot know, unless it be told him by some of your own men; and therefore the giving of both before the Battel, must never be omitted. I remember once when some Forces I had the Honor to Command, obtain'd, by the blessing of God, the Victory against the Enemy; an Officer of mine, having kill'd an Officer of the Enemies, and finding he had a good Beaver, he tyed his own Helmet to his Saddle Bow, and put on so hastily the dead Mans Beaver, as he forgot to take out of it *the green Branch* which was *their Field*

Field Mark, and to put on a *white Paper* which was *our Field Mark*; and following the Execution with his Sword all bloody, a Captain of Horse of my own Regiment, taking him by his *Field Mark* for one of the Enemy, and judging he had done no little slaughter by his Sword being all gored to the Hilt, undertook him in the pursuit, and turning short on him, before he could see his face, ran him through and through with his Tuck, whereof he dyed in a few minutes. But finding the Enemies *Field Mark* had caused his death, he own'd his fault, and so acquitted my Captain from any Guilt.

Whatever can be done before a Battel to distract, or intimidate your Enemies Army, ought not to be omitted; some Examples of this way of proceeding I shall mention.

The *Archduke*, before the Battel of *Newport*, having cut off several Companies of the Prince of *Orange's* Army (sent under Count *Ernest* to secure some Passes on the way the Enemy was to march.) caused a Trooper of his, on purpose; to be taken Prisoner, just as the Armies were going to Engage; who being brought to the Prince, did with a loud voice tell him, That Count *Ernest* was defeated, and that immediately the Battel would be given him; and exceedingly magnified, in the hearing of all which were present, the Numbers, Bravery, and Resolution of his own side; and though the Prince immediately caused his mouth to be stopped, yet so many had heard what he said, as it was in an instant diffus'd over the States Army, and struck into it no little damp, if not terror.

If the Ground admits of it, it were adviseable, if it can be done safely, the Night before the Battel to lodge in a Wood, or Coppice, or hollow Ground, some of your men, concealed on the Flank, or towards the Rear of your Enemies Army; who by falling on just as you are engaging, or newly after you are engaged, may be of great benefit to you, and prejudice to him; as it was done in that great Battel between *Jeroboam* and *Abijah* and in many others: But then great Caution must be had, that the Enemy discover not this *Ambush*, lest he cut it off before the Battel, and thereby weaken you, and animate his own Party, as it hapned to the

the *Suedes* near *Lindum* in the Year 1632, and to many other parts of Armies in other Countries; For whoever goes upon designs, whose success depends on very fine, and nice management, must be exceeding wary, else he had better never attempt them; and therefore though they may be, and have been practised, with good success, yet I am, in my own private judgment, no over-great Friend to any such Policies in War, where I may, in the management of them, be discovered, and not possibly know of it timely enough, to receive no detriment thereby: For where the Fate of a Kingdom, and the Lives of thousands are at stake, as in Battels the first too usually is, and the last alwayes is, I would still act on solid Reasons and Principles; and in Stratagems, embrace such methods only, as if they had success would be of great advantage; and if they failed, yet I should thereby lose nothing but my hopes.

The making a *Speech* by a General to a whole Army before a Battel, is often read of in our best Histories; as well as Romances; but ought, in my belief, to be onely found in the latter: since 'tis impossible for any General to speak audibly, in an open Field, to above a Regiment at once; and if he makes an Harangue to every Regiment, he will employ that time in talk, which is more usefully spent in ordering his Forces, and in Action. Not but that I think it highly useful that the Officers and Soldiers of an Army before the Battel, should be told all that may heighten their Courages (as the Goodness of the Quarrel they fight in, the beneficial Consequences of their Victory, the fatal Effects which must attend their being worsted, the Honour they have gained in many an Action which is too precious to be all lost in one, &c.) But because I esteem such Orations impossible to be made by one, to many thousands at once; therefore I think it is the duty of a General, to infuse these Incentives to Victory, into his chief Officers first, and then to order their imparting them convincingly to the subordinate ones, and those to inculcate them, on all occasions, into the private Soldiers, and especially on their Guards, and a little before they go to fight; and to do it but to a Troop, or a Company at a time; and in these wayes I do not only approve of such

Oratory, but esteem it very practicable, and highly useful before a Battel : Besides, when all the Officers thus discourse to their Soldiers, it shews an Unanimity which cannot be so practicably evidenced, when the General singly speaks to them.

The *Shouting* to the Battel is very ancient, and we read of the practice of it, in most Warlike Nations, as amongst the *Jews* in the time of *David*, amongst the *Romans* in the time of *Cesar*, &c. The *English* are so much inclined to it, as I have but once, in those Actions I have been in, seen them omit the doing it, as soon as ever they came within Cannon-shot of the Enemy they were to fight with; and then I minded them of that Neglect; which they immediately amended; such shoutings bring not only a kind of terror on the Nations which do not use them, as being commonly an evidence of great joy in those who make them, but also it stirs up the blood and spirits before, and heats them during the Fight.

But though such *Shoutings* are useful going towards the Enemy, yet a deep silence must be observed by the Soldiery, when you are about to engage; that the Officers Orders, and the Words of Command may be clearly heard, and punctually obeyed.

'Tis observed that the *Grecians* went alwayes silently to the Battel; alledging for it, That they had more to do than to say to their Enemies.

But such *Shoutings* is a kind of *doing*, for it stirs up your own Men, and often damps your Enemies.

This puts me in mind, how that once marching in Battalia in a plain Countrey to fight the Enemies Army, and as they marched in the like order to meet us, some Musketeers of ours running hastily to a Budge-Barrel to fill their Bandoleers, and being careless of their Matches, the Budge-Barrel took fire, and blew them up; at which the Enemies Army *shouted*; and finding our Men did not answer them, I rid hastily to the next Squadrons, and Battalions, and commanded them also to shout; which the rest of the Forces taking it from them, repeatedly did: soon after, the like Accident happen'd to the Enemies Army, and then our Men *shouted*, but

but were not answer'd ; which I bid the next Troops to take notice of, as a sign they were disanimat'd, and a proof that their loss was considerable by that blowing up; the Soldiers took it as an *Omen* of that Victory which God soon after was pleas'd to give us: which seems to shew, That *Shouting*, according to the Soldiers understanding, is a token of joy; and the Enemies not answering it, an evidence of fear; and whatever may cause fear in your Enemy, ought not to be omitted by you, since *Fear* is truly said to be a *Benefayer* of that *Succor* which Reason else might afford.

Besides, there is in all Mankind a *weak Part* and Experience has but too clearly evidenced, that the difference between the Best, and the Worst Men, does not consist in those being totally exempted from the Influences, and Operations of it, but in the degrees of being less liable to it. Now this *weak Part* is affected with Noise and Pageantry, and therefore when the shew of danger is thoroughly impress'd on the Intellect, by the conveyance of the Senses, the minds of Men are too much disturbed to be then actuated by the dictates of Reason.

The putting into Rank and File, and the forming into the order of Squadrons and Battalions, all the Men and Boyes which attend the Soldiers, and can be spared from the Baggage, and are not armed, may be of good use; for all those so ordered, and placed at a competent distance, as a Grand Reserve in the Rear of all, make a formidable shew to your Enemy, and inclines him to believe you have a third Line, or Battalia, to be broken, before they can get the Victory.

Nor is this all the advantage which may be derived from thus disposing of those useless Persons in a day of Battel; since thereby also, you will hinder them from filching the Soldiers Goods, while they are busie a Fighting; and will keep the Field clear, which you engage in.

I mention this last Particular, having sometimes seen the Soldiers Boyes, and the Drivers of Carriages, either incited thereto by natural Valor, or desire of Pillage, or both; so closely attend the Rear of their Masters who were fighting; that when they were disordered, it occasioned much hazard and confusion in the Rallyment.

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But these appearances of Soldiers, must always be put at such a distance from the Enemy, that he may not see they are unarmed, and consequently but a meer show; for then that will become ridiculous, which otherwise will be terrifying.

Though I have already said in General, That if your Enemy be stronger than you in Cavalry, you must cover yours with your Infantry; and if he be stronger than you in Infantry, you must cover yours with your Cavalry; Yet possibly it may not be useless to set down, in some Particulars, how those General Rules may be best practised.

If my Enemy did much outnumber me in Horse, and I him in Foot, I would flank every Battalion of my Shot with Files of Pikes; Nay, I would so order such of my Battalions as were likeliest to bear the often Charging of the Enemies Cavalry, as that the Front, and Rear of my Shot in them, should be covered with my Pikes, as well as my Flanks; and under my Pikes, my Shot should be still firing, either keeping their Ground, or Advancing, or Retreating, as there should be occasion.

Nor would I omit if my Enemy very much overpower'd me in Cavalry, to place small Battalions of Shot, and Pike, so order'd, as is immediately before express'd, in the Intervals between my Squadrons of Horse in the first Line of my Wings: For to me it seems much more adviseable, if you mingle Battalions with Squadrons in your Wings, that such Battalions should be of Pike and Shot, so ordered, than of Shot alone, as is the usual method in such Imbattellings. For if such small Battalions consist of Shot only, the chief advantage you can derive from them, is, by their firing to disorder your Enemies Squadrons, just as you are going to Charge them; but if that fails of the hoped-for Event, whatever becomes of your Squadrons, these small Battalions are too much exposed to Ruine: for Shot onely, will not resist Horse in an open Field, especially when those Shot also, are disanimated by the Flight, or Routing of the Horse that had fought on their side.

Besides, I have found experimentally, That private Soldiers never fight, with the needful Courage, when they are led on such a piece of Service, as this of Firing on an Enemy,

my, and after to shift for themselves, if that Volly does not the Work ; for then they do it in haste, and too often time-rously ; for even while they are firing, they are looking which is the best Way to flee, when they have done firing ; which would too much distract Men of more settled minds, than private Soldiers are usually blest with : To which I shall further add, That Musketeers, so imbattled, and chequer'd, as it were, with Squadrons of Horse, may too likely on the disordering of your first Line of Cavalry, be so shuffled together by those of it that are Routed, by those of your Enemy which pursue the Rout ; and by those of your second Line which advance to stop the Enemies pursuit, that the poor Shot can neither be useful to their Friends, nor offensive to their Enemies.

Whereas if those small Battalions be composed of Pike as well as Shot, and be ordered as is formerly set down, they will, (in the Spaces, or Intervals between your Squadrons) not only make almost as great Fire on your Enemies, but also firing under the Pikes, do it with less apprehension ; and consequently take their Aim the better, and thereby do the more Execution.

Besides, fighting with a Resolution to make good their Ground, composes their Minds, and makes them the more Resolute against their Enemies, and the more obedient, to their Officers Commands ; but what is most material of all, is, If your Squadrons should be disordered, nay, routed, yet such Battalions as these, will, for some time at least, keep their Ground, and with their Shot, if not with their Pikes, gaul your Enemy, while under their Covert, your Horse may Rally, and come again and again to the Charge, and possibly recover the day. Nay, it makes your Cavalry fight with more Confidence, when they know, that one, or more disastrous Charges, may, by thus ordering some of your Infantry, be repaired by their own Rallying in the Rear of them ; and those who know what belongs to War, will not be over-forward to Charge the second Line of your Wing, leaving at once such Battalions of Infantry, and the disorder'd Cavalry Rallying at their backs ; but on the contrary, will hardly judge it adviseable to attempt your second Line, till they have intirely swept out of the Field your whole first Line.

I did frequently, though unworthy of the Honour, command Forces in Chief, and therefore I esteem'd it my duty to be often thinking, and arguing, how they might be employed to the best advantage; and though in the Wars I was in, we alwayes were, or at least thought our selves to be, superior to the Enemy in Cavalry; Yet I was not seldom busying my thoughts, how we might best fight in case he should be, at any time stronger than I, in Horse, and I stronger than he, in Foot.

The Result of those Thoughts I will presume to Present my Reader with.

The Checquering my first Line of Cavalry with small Battalions of Shot, I judg'd was not the most secure, or the most effectual way, and therefore I concluded the Impaling, as it were, my Musketeers by my Pikes, as is before-mentioned, was much the better. And because whatever is new, and surprizing to your Enemy, is still of considerable advantage, especially at the instant in which you are going to Charge him; I resolv'd, had I ever had an occasion to do it, to have acted (when the Ground allow'd of it) as followeth:

I. I would have drawn up all my Cavalry a-breast, either two, or three deep, as I should have esteem'd it the best; as things were circumstantiated.

II. I would have appointed previously, what Squadrons should have compos'd my first Line, and what Squadrons should have compos'd my second Line, and what Officers should lead, or be in the Rear of every Squadron in both Lines, and have communicated to them respectively, my Orders therein.

III. I would then have drawn up those small Battalions of Pike and Shot, order'd, as I formerly mentioned, just in the Rear of every such Squadron only, as was to compose the first Line of my Wing, and just as many in a Rank as might fill up the intended Interval when it was made; and have caus'd my Pike-men to trail their Pikes, that they might not

not have been seen by the Enemy; which if shoulder'd, or ported, they would be.

I V. I would then have advanced towards the Enemy, as if I had had no second Line, or Reserved Squadrons; but just when I was come so near him, as that it was time to form my first and second Line, I would, at the Trumpets sounding the Charge, (which should be the Signal for the doing it) have composed my said two Lines of my Wing, by the Squadrons of the Front Line continuing their motion, and by the Squadrons of the second Line making a Stand at Ease.

V. As the first Lines would be forming it self by the Squadrons of it continuing their motion, and the second Lines would be forming it self by standing, I would in the Interval of Ground made thereby, have caused my small Battalions of Pike and Shot behind every Squadron of the first Line, to march up, and make an even Front with the same Squadrons in whose Rear they had till then marched; and so have begun the Battel, advancing with the Horse, and those Foot, my Shot firing under their Pikes incessantly.

This I esteem'd would have been both new, and surprising; for it would have been thought strange by the Enemy, and likely have given him an ill opinion of my Conduct, to see me bring all my Cavalry to fight at once; which the first Form of my advancing would probably make him believe was my intention: But when he unexpectedly saw that I composed my two Lines orderly in my advancing, it might amaze, and surprize him. And in all likelihood both those Productions might be heightned, when he should also see my small Battalions of Pike and Shot appear unexpectedly from behind my Squadron, and advance in an even Front with them to the Charge; so that his Horse singly, must endure the joint shock of my Horse, Pikes, and Musketters.

If this method of Checquering my Squadrons in the first Line of my Wing with small Battalions of Pike and Shot, order'd, as I have set it down, should be approved; and that
you

you have Infantry enough so to Checquer your second Line also, and that you shall esteem it necessary to have it done, by reason of your Enemies exceedingly overpowering you with Horse; you may also observe the like method of doing it in your second Line, as you did in your first, by having such small Battalions of Pike and Shot, drawn up, and marching in the Rear of those Squadrons which are to compose your second Line, who may advance by the Interval Ground, between the Squadrons to the Front of them, when by your first Lines continued motion, they have left the Ground free.

In the doing of all this, there are some Particulars I would recommend to be alwayes observed.

I. That your Pikes which are to be trail'd, during your advancing, behind the Squadrons, that the Enemy may not discover by those long Weapons what you would conceal from his sight, be ported as soon as ever you begin to appear between the Intervals, between which you are to march up, to make an even Front with your Cavalry; that thereby they may be the readier to be Charged against the Enemy, who will by that time be very near; and therefore such preparative readiness to receive him, is very needful.

II. I would have all my Firelocks load their Muskets, with Pistol Bullets; for the Enemy against whom you Fire, will be alwayes very near; and therefore several Pistol Bullets out of one Gun, will do as much Execution, as one Musket Bullet at a time, out of many Guns.

III. Those commanded Pikemen which are to impale your Shot, ought to be of the resoluteest and strongest men; for on their Courages, will depend much of the safety of your Horse, and of your Shot; and therefore if I had Pikemen armed defensively with Back, Breast, Pott and Faces, I would choose to place them there; since they are also to endure the shock of your Enemies Cavalry.

IV. The shot of these small Battalions, must be still bestowed on those Squadrons of your Enemies Wing which compose

compose his first Line ; for those are the nearest, and the most pressing ; and the Muskets being loaden, with Pistol Bullets, they will not do certain Execution on any Squadrons of the Wing of his second Line, which are usually about 100 Yards less advanced than his first Line.

Lastly, If it be on your Right Wing that these small Battalions of Pike and Shot are placed, then I would have them when they advance to Front even with your Squadrons, alwayes to do it to the Right of the Squadron they marched in the Rear of ; and if it be on the Left Wing, alwayes to the Left : For thereby your Flanks of your outward Squadrons in each Wing, will be cover'd with Pike and Shot, and the innermost Squadrons of your Wings will be flank'd with the Battalions of the Foot of your Army.

Therefore if this be not stedily observed, your outmost Squadron of both your Wings, will be needlessly left unflank'd by a small Battalion of Pikes and Shot, which when you are much outnubred in Horse, will be too hazardous, and therefore the preventing it highly adviseable.

I acknowledge I never practised this against an Enemy, but it was meerly because I never had need to do it, neither did I ever exercise my Men to it ; and that proceeded only from an apprehension, that it might discover what I intended, in case there had been need, and thereby probably have made it less effectual. But I am confident it is very easily practicable, and to be made of very advantageous use, in case the Enemy were much my superior in Cavalry, and I stronger than he in Infantry.

But I submit this Notion to the judgment of those who are better able to determine of it, than I.

If your Army be stronger by much in Cavalry than your Enemies, and his stronger by much than yours in Infantry, I would then earnestly endeavor to fight both, or at least one of his Wings with both or one of my Wings ; which I once did : and I would make all my Infantry move as slowly towards the Enemy as they could, while I advanced a round trot with my Cavalry, and Charged that of my Enemies ; And if I had success in both my Wings against both his, or

in one of my Wings against one of his, then I would make the next innermost Squadrons of my second Line of that Wing which had beaten the Enemies, or of both my Wings if they had defeated both the Enemies Wings, immediately march to flank my Battalions of Foot; but not to hazard Infantry to Infantry, till mine were Wing'd by some Squadrons of my second Line, and then advance to the Charge as expeditiously as I could, without disordering my Battalions; thereby making my Squadrons doubly useful: And the Enemies Infantry must be resolute men indeed, when all their Horse are routed, and that they are to be Charged with all my Infantry, and divers Squadrons of my Cavalry, and are to be raked with my Cannon, which then may be drawn up for that end, if they are not soon reduced to furl their Colours, order their Pikes, and crave Quarter.

I would further, in case I were strong enough in Cavalry to do it, even before my Wings were fighting against the Enemies Wings, appoint some Squadrons of mine to draw up in the Rear of my Battalions, both to countenance my own Infantry, and the more to deter the Enemies from Charging them during the Engagement of all the Horse of both Armies: For it is the duty of a General to order all things as safely as he may, and to leave as little to what is called Fortune, as possibly he can.

The clearing of the Ground you intend to imbattel on of all such Squadrons, or Battalions, as your Enemy may have advanced on it, before you bring up your Battalions, and Cannon on it, ought never to be omitted, and ought still to be done by your Horse, and Dragoons, or with few, if any of your Infantry: For the neglect of this may hazard your Army; since the Enemy having the start of you, by getting part of his Army in the Field of Battel, before you get any of yours, he may thereby cut you off by peece-meal, while you are forming your Imbattelling; This I observed was carefully practised by the Prince of *Conde* before the Battel of *Rocroy*, and *Monsieur de Gassion* was commanded with his Cavalry to do that Work; which being effectually done, it did not a little contribute to the Princes Victory.

In the Imbattelling of your Army, I would still do it, (where the Ground admits it) by drawing up in one Line only all the Cavalry and Infantry, and not as I have seen some unexpert Commanders do, Draw up first a Squadron of a Wing, which was to compose part of your first Line, and then a Squadron of Reserve to it, which was to compose part of your second Line; and so in Sequence all your Squadrons and Battalions of your whole Army; for that method is tedious, and the just spaces of your Intervals between Squadron and Squadron, and between Battalion and Battalion, cannot be so well adjusted by the Eye, as by the first filling up those spaces with the Soldiery; for the first is but Guessing, but the last is Certainty.

I would observe this method not only in order to the better, and more expeditious Imbattelling my Army if the Ground allow'd it, but I would also observe it as much as orderly I could in my advancing to the Charge, until I saw it time to form my two Lines by the continued motion of those Troops which are to compose my first Line, and by Alting of those Troops which were to compose my second Line, and of my third Line, if the Ground were so scanty as my two first could more than employ it all. And this not singly for the Reasons before exprest, but for this additional one also, *viz.* It being very difficult for many and great Squadrons which have Intervals, between every two of them to preserve the just Wideness of the Intervals if they march far; and if those Intervals are not duly observed, 'tis impossible to avoid one of these two mischiefs, either if they are contracted during your Advance the Troops which at need are to march up through them will be disabled from doing it, or at least so many of them as cannot, will in their separating from those which can, be disorder'd, and too likely remain useless. Or if these Intervals be enlarged, your Flanks are thereby exposed to be fallen into by the Enemy, therefore in my poor judgment, that way is the very best, which will most likely prevent your being involved in either of them; and that is practicable and attainable I believe, by not making any Intervals, till almost you may have need of them, which by advancing all your Army in one Line, until you come so nigh the Enemy, as you judge is a fit time to form
your

your Lines in the manner before set down. And then the distance being so little between you and your Enemy, 'tis not likely (if but ordinary care is taken) that the Interval Ground can be either much contracted, or much enlarged, at least 'tis not so likely, that either of those Ills will be run into, marching over but a little Ground, as marching over much: and if but moving a few paces, the mischief is probably in some degree to be run into, then so much the more care ought to be taken, that as few paces may be so marched as possibly you can contrive.

I cannot see any solid Objection can be made hereunto, in reference to your Artillery, for those usually being drawn in the Front of your Battalions, till you come to place them where they are to do execution, they may be advanced still before the Front of your Army, though you should march it but in one Line till you come near the Enemy; but this, as all things I write, I shall chearfully submit to better judgments.

If you are desirous to come to a Battel with your Enemy, and that he endeavors to shun it by constant Intrrenched Campings, and by having good Magazines and Arsenals with or near him, and a plentiful Countrey at his devotion behind him, which is usually the best Game of him whose Countrey is invaded; for he has little reason to give you Battel, when by keeping unfought with, you cannot safely enter far into his Countrey, leaving his Army intire behind you; I say, in such a case, you ought, by often Removings, to try for an opportunity to give him Battel; for since he is to attend your motions, sometimes an occasion to fight him unexpectedly both to him and you may be offer'd you.

Sometimes also by your suddenly sitting down before a Garison of his, and endangering the taking of it, he may be induced to give you Battel, which he would not do, but in hope to prevent such a loss.

Sometimes it may be adviseable for you, (if you are much his Superior in strength) with as little Baggage as possible, and with as much Bread as your Men can carry, and with Herds of fat Cattle to be driven with you, (which last is a Provision that carries it self) to make Inroads into his

his Countrey, both to destroy and pillage it, this may provoke him to follow you, lest his Countrey esteem him careless in the defence of it, and thereby you may find opportunities to fight him.

And sometimes by your invading parts of his Territories; at a considerable distance from those places where he has formed his Magazines, either necessitate him to remove from them, or else expose to your Army those Countries of his which you fall upon. As *Cæsar* by the like method drew *Pompe* from his Magazines and Fleet at *Dirachium*, and made him follow him into *Thessaly*, by which means *Cæsar* won his famous Battel of *Pharsalia*.

I look upon it as a Maxim in War, never to have the Army of the Invaded Countrey to give Battel to the Invading Army, but on very great necessity, or on very great advantages; for the Invaded by losing a Battel, may lose his Countrey; but the Invader by losing one, will but lose his Hopes, his Baggage, and as many Men as are kill'd in the defeat; and few discreet Gamesters will play their All against little or nothing comparatively.

Therefore as the Invaded must still be careful to avoid a Battel, so the Invader must still be forward to offer it, on any fitting terms; for should he not, nothing else will keep up his Reputation, which, of all humane things, ought most carefully, and jealously, to be kept up and increased in War.

In my private thoughts, I cannot readily believe, that any Kingdom can easily be Conquer'd, where the true Principles and Methods of War are alwayes observed, unless some great internal Revolutions of Affairs, or general Revolts of Subjects, should occasion such a misery.

And therefore whatever I have heard to the contrary, I freely own, I cannot be brought to believe, that this present fatal War kindled almost all over Europe, will have such great Progresses as some of more sanguine Complexions than

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I am, have believed, or rather fancied; for though *France* has the formidablest League against it, that perhaps was ever yet made in *Europe* against any one Monarch of it, yet I cannot find the Advances of his Confederated Enemies are very considerable, nor can I believe they will be, for the Reasons formerly mentioned in this Book, and also because he does by Intrenched Incampings, and providing timely and plentifully for his Armies to eat, frustrate, in effect, all the great Enterprises of his Enemies, which is practicably to perform the solideest Maxims of War; and whoever he be that can stedily observe them, will find the necessary benefits which will result to him thereby, unless a higher Power does turn the Wisdom of Man into Foolishness, and against that stroke, there neither is or can be any defence.

I shall now offer to Consideration three Particulars more, which are, I think, useful to be observed previously to a Battel.

The first is, That Orders be given that no chieff Officer who commands a Squadron, or Commissioned Officer who leads one with him, have that Horse he Charges on, advanced above the length of his head, before the Front Rank of his Troopers.

My Reason for it is this:

Because if those who lead Squadrons to the Charge, be before the Front Rank, they either without cause adventure to be shot by their own Men behind them, or hinder some of them from firing, or which is far worse, when both Bodies come to the shock, such as are out of the Ranks, and between both Bodies, are needlessly exposed, even when they are of most use to those Men they command, and consequently the whole Army.

In answer to this, I know some have said, It does not a little animate the Squadrons, to see the Officers which command them, lead them on eight or ten Paces before the first Rank, and then just as they are going to mingle to fall into it. But I must say, I believe good Soldiers need not such Airy Animations,

tions, and the Bad will not fight well, though they have more substantial ones.

Besides, I believe it does rather Disanimate, than Encourage Soldiers, who have any consideration, when they see those Officers, whose Conduct they rely upon, give them so ill an impression of it, as doing a vain thing, by which also they may too probably incapacitate themselves to command their Men, when they are likely to have most need of being order'd to the best advantage, either as to their Rallying, if discomposed in the Charge, or an orderly Pursuit if successful.

To which also may be added these two other Considerations; If the Officers advancing some Paces before their Men, be a great Animating them, may it not be a greater Disanimating of the Soldiery, to see them, when ready to Charge, put themselves into the first Rank: For their going before their Squadrons while there is no danger, and the returning when there is, will, in all likelihood, make the latter Action dishearten more than the former can encourage; for all Animations are more effectual, when the danger is at hand, than when it is remote.

When the Squadrons advance to Charge, the Troopers Horses and their own Knees are as close as they can well endure, so that it will be impossible for the Officers to fall into the Rank if it be well wedged up; or if it be not, thereby to give them admittance, it may leave such Gaps in it as may hinder the close uniting of the Rank, which is so necessary to make the Charge effectual, and commonly the Officers Horses being of the best and of the highest mettle, when they come among strange Horses, especially backwards, may by their fighting and kicking so disorder the Rank, that the Enemy is more likely to come in at the breach than they.

I would also strictly forbid all those who have the chief Command of a Squadron, to fight against any of the Enemies Squadron, who should come out in a bravery to fight;
For

For who knows but the Enemy may send an ordinary Person, but valiant, on such an Exploit, and if your chief Officer of a Squadron should engage with him, his killing of the other will signifie little, but his being kill'd would much prejudice the whole Squadron, and possibly thereby the whole Wing, if not the whole Army.

Therefore still in such *Pickeerings*. if they shall be judged necessary at all when Troops are ready to mingle, only such young Gallants should be allowed to be the Actors, whose deaths, if they should happen, will not be of such a Consequence as the Fall of an Officer, who has the Honour and Trust to command a whole Squadron; For in War I am an utter Enemy for the sake of Showes to hazard Substances: And since the Nature of War leaves but too much to Uncertainty, I would expose as little as might be of it to Choice or Capriciousness.

A second thing which I offer to Consideration is, That your Standards or Cornets Colours, in a day of Battel, be in the second Rank;

For these Reasons:

They are safer there than in the first Rank; and thereby the briskest of your Enemy has the least invitation to attempt the winning of them.

The chief and solid Ends of having Standards or Cornets flying, is, That Troopers, if they are disordered in the Charge, may see under what they are to Rally; and it being a high disgrace to lose their Colours, it makes Men fight the heartilier against those who would cast it on them; therefore, in my opinion, those Cornets should still be placed in a Battel, both for the greater safety of them, and the better to answer the speedy Rallying under them, where they are most useful, and most secure; which last, I think, will be in the second Rank: For there every way that your Troop can be attack'd, it has a Rank between it and the Enemy to defend them, and all the Troop also to do it, being it is in the Centre of it.

A third thing I offer to Consideration, is, That when your
Enemy

Enemy does very much overpower your Infantry, that the Battalions of Pikes which are in your first Line, may have only so many Colours flying at the head of them, as will serve to let the Soldiers see where respectively they are to Rally, in case of their being disorder'd or routed; For nothing does more excite an Enemy to push for Colours, than to see many, and near him; and since a few will serve to answer the need of orderly Rallying, why should there be more in the first Line.

All the rest of the Colours I would have flying at the head of your Pikes in your second Line, where they will be much safer; and when the smoke of the Cannon, and of the Small Shot is driven away by the Wind, or so attenuated, that your Enemies may see through it, the sight of so many Colours flying at the head of your Battalions or Stands of Pikes, casts a kind of dread on the Soldiery of your Enemy, who having been accustomed to see Colours guarded by full Companies, conclude those are the Pikes of so many tire Companies, in your second Line, as they see Colours flying at the head of those Pikes, and makes them thereby even despair of vanquishing such a Force in your second Line, especially if they have been vigorously opposed, and much shatter'd by your first Line.

If in Objection to this it be said, That in case you win the day, though you should for a time lose any of your Colours, yet as one of the many consequences of your Victory, you will recover the Colours you lose; and if you lose the Field, they will as certainly be lost in the second Line, as if they had been in the first.

To that I answer, It is a disgrace to have had for any time, any of your Colours in your Enemies possession; and who knows also as soon as any of them are taken, but some may convey them so expeditiously out of the Field, as though you get the day, you cannot get again your lost Colours.

Besides, I have known a defeated Army, at the close of the day, which has had some success in the beginning of it,

and had then taken some Colours by shewing which in Places and Countries they retreated into, have persuaded the People they were the Victorious, and thereby have gotten the Recruits, for their shatter'd Troops, which nothing but such a Belief, grounded on such Evidences, could have procured for them.

During a Battel, or in it, it is the duty of the General still to send timely Succor to any of his Battalions, or Squadrons, and rather a little before than one moment after they need it.

And for that end to have several Gentlemen about him well known to the chief Officers of the Army, to carry to them on the spur the necessary Orders from time to time.

It is also his duty when he sees a breach in his Army, which nothing but his own presence can probably repair resolutely in person to lead those Troops which are to do it; but as soon as ever it is made up, then to return in person to that station from whence he may see how all things go, that from thence he may timely send alwayes his requisite Orders.

He ought also neither too hastily to believe the Enemies Army is Routed, and therefore to command the general pursuit; for thereby he may hazard his dawning Victory: nor too slowly to order the Follow of the Rout, when he is satisfied it is Real and General; for else he may lose the best advantages of his success.

A General ought, when he sees a Wing of his Enemies Army palpably Routed by a Wing of his, to draw as many as he can well spare from the second Line of his successful Wing, to the rest of his Army, (leaving the rest to follow the execution) that by such help and such order he may intirely and more safely both defeat such of his Enemies as yet make head, and pursue those which are Routed.

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He ought also never to think upon, much less order his Army in a plain Field to receive the Charge, but still to meet the Enemy in giving it. Pompey, in the decisive Battel of Pharsalia, by the advice of Triarius, commanded his Soldiers to receive Caesar's Assault, and to undergo the shock of his Army, without removing from the place whereon they stood, alledging that Caesar's men would be disorder'd in their Advance, and Pompey's by not moving keep their Order; on which Caesar himself sayes, viz. *In my Opinion this was against all Reason, for there is a certain Incitation and Alacrity of Spirit naturally planted in every Man, who is inflamed with a desire to fight, and therefore no Commander should repress or restrain it, but rather increase, and set it forward.* And the Event justified Caesar's Opinion therein was well grounded.

A General ought, when he sees the day irrecoverably losing, having first done his very utmost to recover it, to get together as many of his Soldiers as possibly he can, especially Horse, and with them to bring up the Rear; and make his ill success as easie as he can to his own Party; and if he have any Garisons which he doubts his Enemy may attempt in the heat of his Victory, to sling into such Garisons those of his Infantry which are left amazed at their defeat, thereby to stop the current, and give some check to the Victorious, while he is getting together the residue of his Army, the sooner to recruit it, and to try to recover afterwards what then he lost.

After the Battel is fought, and the Victory apparently won, a General ought to take great care, as is before set down, that the Pursuit be orderly made, and consequently the safer; for which end I offer to consideration,

That the Cornets Squadron of every Troop be expressly forbidden ever to be of the loose Pursuers, but to keep always intire, and follow as fast in order as they can, those of the other two Squadrons of it which are on the execution.

This

This I have practised, and found these three Benefits thereby :

First, Thereby the Standards of all Troops are still well secured, which ought alwayes to be carefully minded for I have known those of them of the victorious Party often in hazard to be lost, when out of too eager an haste to pursue a flying Enemy, the Troopers of the Cornets Squadron have follow'd the Pursuit, and left their Colours unattended, or but slenderly guarded.

Secondly, The Cornets Squadrons of the first Line of your Wing, being still kept in order, and by being the nearest to a flying Enemy, are much fitter to follow in a Body to countenance, and if need requires actually to justify your Pursuers, than any Squadrons of your second Line of your Wing can possibly be ; for the Enemy by his flight having got the start, and Men who run for their lives doing it with their best speed, it will be almost impossible for those which are so much behind them as your second Line is behind your first, ever to overtake them ; wherefore, such as are the nearest to them when they first begin to Run, are those only who most properly and most hopefully are to march in a Body, after those who dispersedly pursue ; that the Enemy may immediately be Routed, if he begin to Rally, which nothing does more frighten him from attempting, than to see so near him so many Parties in good order to make him smart for it.

Thirdly, The more of the first Line of your Wing which in orderly Bodies can follow, to countenance and protect your Pursuers, the more you can spare of your second Line of your Wing, to join with others of your Army to defeat those of your Enemies which remain unbroken ; and though in the Battel you should fight the Cavalry three deep, yet after your Men have absolutely Routed those they Charged, I would have every Cornets Squadron follow your Pursuers but two deep, whereby a Troop of 90 Horse having in every Squadron of it 30 Men, the Cornets Squadron being drawn up two deep, will have 15 in each Rank, and having
a Stand-

a Standard at the head of them, will appear a full Troop to those who flie, and shall have but now and then time to cast a sudden look behind them, when seeing so many seeming entire Troops as there are Squadrons in a Wing of your Army, it will be so terrifying a Prospect, as few will dare to Rally, while they see it, and so near them.

After the Chace is finished, which ought still to be continued, as warmly and as far as may be, I esteem it an indispensable duty in a General, even in the Field of Battel, to draw together all his Forces that he can, and with them cause to be returned to Almighty God, their most humble and hearty thanks, for his blessing, in his bestowing on them the Victory, and his preserving so many of them from death; for an unfeigned and publick Gratitude to God, is not only what Piety, but even what the light of Nature does teach, and nothing does more incline God to bestow future blessings, than to have Men really thankful for the present, and to own him to be the onely Author and Finisher of them.

A Generals next care ought to be, to have his Wounded Men well tended, his Dead honourably buried, his Prisoners strictly, but civilly kept (and to have a true List of all;) to take publick notice of those who behaved themselves well, to rebuke such as did the contrary, to send Spies to discover what measures his Enemies will take in their Calamity, the better and more advantageously to form his own Counsels and Actions, and most vigorously to pursue his Point, while the terror of a Defeat is fresh in the minds of his Enemies; since 'tis as essential to a General to make the best use of a Victory, as to know how to obtain it.

I confess I have the more minutely insisted upon the protractive or fencing parts of War, by Intrenched Incampings, &c. because few of my Countreymen have made it much their study, but being carried on by the natural *Genius* and Hereditary Gallantry of the Nation, they are alwayes ready by true Valor expeditiously to determine their quarrels; and though this is highly estimable, yet I would not be ignorant

of other useful methods; for I know few Men use to travel on foot, that would not be willing to have Horses to lead in their hands, that when they are weary of Walking, they may by Riding on them come to their Journies end. And since Battels are what our Countreymen most breathe after, and long for in War, I have also the more particularly insisted in this Chapter on what seems most materially, if not essentially to be known Before, In, and After they are fought.

But after all that I have said on Battels, nay possibly after all that has been said, or has been practised in them, (could both those be known) it is my firm belief, that still very much will be, nay must be left to the Judgment and *Presence of Mind* of a General, and the chief Officers under him, whose actions must be order'd according to the circumstances present; in doing whereof most advantageously, no set Rules previously can be given, for they must be taken as the occasion is offer'd, and then resolutely and speedily pursued; yet what I have written, may possibly be of some use, to such of our less experienced Officers, as shall well remember, weigh and practise them, who may by their own more illuminated Reasoning, do as the *Spaniards* did, who though they ow'd the first discovery of *America* to *Columbus*, yet they ow'd the Riches they deriv'd from it, to their own further improving, of what he had but laid the Foundation: And if this should be the Result of my Endeavors, I should esteem them happily employ'd.



F I N I S.

